



# 3000 Series

Wireless In-Ear Monitor System

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## IP Control Protocol Specifications

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## 1 Preface

### 1.1 Purpose of This Document

This document describes the command specifications to control the In-Ear Monitor Wireless System developed by Audio-Technica.

#### 1.1.1 Definition of Terms and Numeric Representation

Term	Description
Host	A device that issues control commands. It refers to application software or a control device.
Device	A device to be controlled.
AT device	A device developed by Audio-Technica.
Message	A character string transmitted per communication in data format.
Command	A command statement to control a device. It is included in a message.
Parameter	Used in combination with a command. It is a setting value that specifies a command behavior.
TX	Refers to ATW-T3205.
RX	Refers to ATW-R3205.

The numeric representation is defined as follows:

Binary number: A value followed by b Example: 1010 0110b

Hexadecimal number: A value preceded by 0x Example: 0xA6

For the FW version representation, zeros are omitted in this document as follows:

Zeros are not omitted in the parameters of the command.

00X.00Y.00Z: X.Y.Z Example: 001.001.000 will be 1.1.0

Example: 001.001.010 will be 1.1.10

## 2 Basic Specifications

The IP control function uses TCP or UDP protocol to control the unit.

### 2.1 Communication Interfaces

**Table 2-1 Communication Interfaces**

No	Item	Content	Remarks
1.	Communication system	Full duplex	
2.	Transmission speed	10Mbps / 100Mbps	
3.	Port number	TCP (control): 17300	Not modifiable (fixed)
		UDP (notification): 17000	Modifiable (factory setting is 17000)
4.	Maximum data length	287 bytes (including line feed codes)	32 bytes for Ethernet communication header 255 bytes for control command
5.	Compatible connector	Device: RJ45 connector (compatible with 10/100 Mbps) Cable: CAT5e or higher	

### 2.2 Command Formats

Transmitted commands are categorized as follows:

**Table 2-2 Command Format**

No	Command	Content	Remarks
1.	Set Command	Action command	Changes the settings of the unit. TCP communication is used.
2.	Get Command	Action command	Acquires the settings and status of the unit. TCP communication is used.
3.	ACK	Acknowledgement	Affirmative response to a set command. TCP communication is used.
4.	NAK	Negative acknowledgement	Response to a command. TCP communication is used.
5.	Answer	Setting status notification	Response to a get command. TCP communication is used.
6.	Information	Status change notification	Reports the unit settings and status changes. UDP communication is used.
7.	Request Command	Action request	Requests an action to the host. TCP communication is used.

### 2.2.1 Command Common Rules

Use a single-byte space (␣: 0x20) as a delimiter.

In general, use ASCII codes for commands and UTF-8 for the parameters of specific commands (Example: Naming a device, etc.).

Add CR (0x0d) to the end of each command.

Example:

```
srfpw␣S␣0000␣00␣NC␣1␣↵
srfpw␣ACK␣↵
srpfw␣NAK␣02␣
MD␣nrfpw␣0000␣00␣NC␣0␣↵
```

- ␣: Indicates a space.
- ↵: Indicates a CR (0x0d).
- : Indicates a command parameter.

Set Command/Get Command/Request Command

The action command format is shown below. TCP communication is used.

**Table 2-2-1 Common Command Format**

No	Item	Content	size	Remarks
1	Command	Command	5byte	Depends on command
2	Handshake Select	Sequence execution method	1byte	H: Handshake method (not used) O: One-way method S: ACK/NAK format
3	Model ID	Model ID	4byte	0000 (fixed)
4	Unit ID	Unit ID	2byte	00 (fixed)

5	Continue Select	Divided message system	2byte	NC: No divided message
6	Parameter	Command parameter	0 bytes to variable length	Depends on command
7	End Character	Message end character	1byte	CR (0x0D)

### 2.2.2 Set Command / Get Command / Request Command

The action command format is shown below.

**Table 2-2-2 Action Command Format**

No	Item	Content	size	Remarks
1	Command	Command	5byte	Depends on command
2	Handshake Select	Sequence Execution method	1byte	H: Handshake method (not used) O: One-way method S: ACK/NAK format
3	Model ID	Model ID	4byte	0000 (fixed)
4	Unit ID	Unit ID	2byte	00 (fixed)
5	Continue Select	Divided message system	2byte	NC: No divided message
6	Parameter	Command parameter	0 bytes or more Variable length	Depends on command
7	End Character	Message end character	1byte	CR (0x0D)

### 2.2.3 ACK

The acknowledge command format is shown below. TCP communication is used.

**Table 2-2-3 ACK Format**

No	Item	Content	Size	Remarks
1	Command	Command string	5byte	Depends on command
2	ACK	ACK	3byte	ACK (fixed)
3	End Character	Message end character	1byte	CR (0x0D)

### 2.2.4 NAK

The negative acknowledge command format is shown below. TCP communication is used.

**Table 2-2-4 NAK Format**

No	Item	Content	Size	Remarks
1	Command	Command	5byte	Depends on command
2	NAK	NAK	3byte	NAK (fixed)
3	Error Code	Error code	2byte	
4	End Character	Message end character	1byte	CR (0x0D)

#### 2.2.4.1 List of error codes

**Table 2-2-4-1 List of Error Codes**

Error code	Error description	Remarks
01	Syntax error	<ul style="list-style-type: none"> <li>- A required element is not found.</li> <li>- The character string of a required element is incorrect.</li> <li>- The character string length for each element is outside the specified range.</li> <li>- The message string length including line feed codes is greater than the upper limit.</li> </ul>
02	Invalid command	<ul style="list-style-type: none"> <li>- The command is not found. (A non-existing command was specified. A command that cannot be used for the device was specified.)</li> </ul>
03	Splitting transmission error	<ul style="list-style-type: none"> <li>- "CM" or "CE" was specified when "CS" of Continue Select had not been received.</li> </ul>
04	Parameter error	<ul style="list-style-type: none"> <li>- Invalid RX was specified.</li> <li>- The parameter is outside the specified range.</li> <li>- Changing a parameter that cannot be changed was attempted.</li> </ul>
90	Busy	<ul style="list-style-type: none"> <li>- Unable to process due to a busy state</li> </ul>
93	Busy(Extension)	<ul style="list-style-type: none"> <li>- Unable to process due to Extension mode</li> </ul>
98	Hardware error	<ul style="list-style-type: none"> <li>- Error in case of memory failure</li> </ul>
99	Other errors	<ul style="list-style-type: none"> <li>- Errors other than the above</li> </ul>

#### 2.2.5 Answer

The command format of the setting status notification is shown below. TCP communication is used.

**Table 2-2-5 Setting Status Return Format**

No	Item	Content	size	Remarks
1	Command	Command	5byte	Depends on command
2	Model ID	Model ID	4byte	0000 (fixed)
3	Unit ID	Unit ID	2byte	00 (fixed)
4	Continue Select	Divided message system	2byte	NC: No divided message
5	Parameter	Command parameter	0byte to variable length	Depends on command.
6	End Character	Message end character	1byte	CR (0x0D)



### 2.2.6 Information

The command format of the status change notification is shown below. UDP communication is used.

**Table 2-2-6 Notification Command Format**

No	Item	Content	size	Remarks
1	Modify	MD	2byte	MD (fixed)
2	Command	Command string	5byte	See 3. Command List.
3	Model ID	Model ID	4byte	0000 (fixed)
4	Unit ID	Unit ID	2byte	00 (fixed)
5	Continue Select	Divided message system	2byte	NC: No divided message
6	Parameter	Command parameter	0byte to variable length	Depends on command
7	End Character	Message end character	1byte	CR (0x0D)

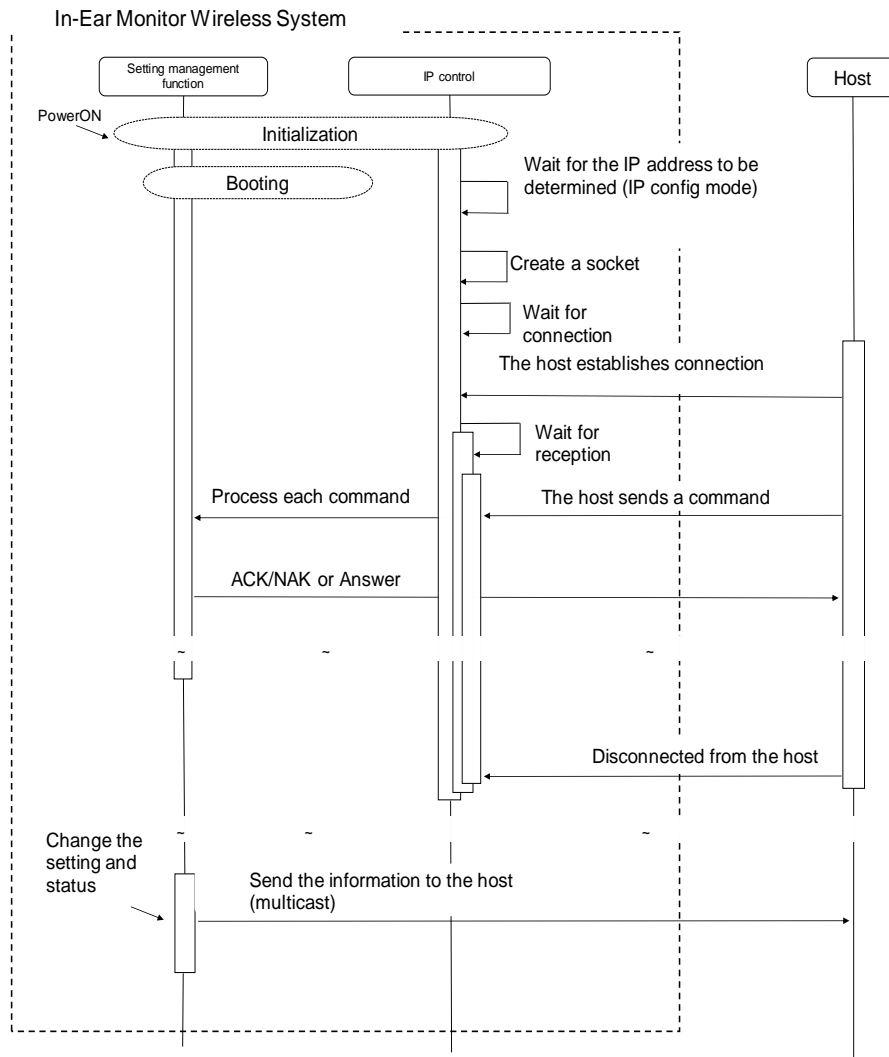
## 2.3 TCP Communications

To control the unit from the host, TCP protocol is used for communications.

### 2.3.1 Communication Control

The following figure shows the communication control flow of IP control.

**Table 2-3-1 TCP Communication Control Flow**



- After the system is booted, the status changes from initializing to connection waiting.
- When the host establishes connection with the system, the status changes from connection waiting to reception waiting.
- Received commands are processed by internal processing tasks, and the results (ACK/NAK) are sent.  
Since commands are asynchronously processed, reception is possible even during processing (The next command can be sent without waiting for ACK/NAK and Answer). However, some commands return NAK (90: BUSY).
- When the system is disconnected from the host, the status changes from reception waiting to connection waiting.

### 2.3.2 Communication Start

The host establishes connections with the unit.

Number of connections is one. Simultaneous connection is not allowed.

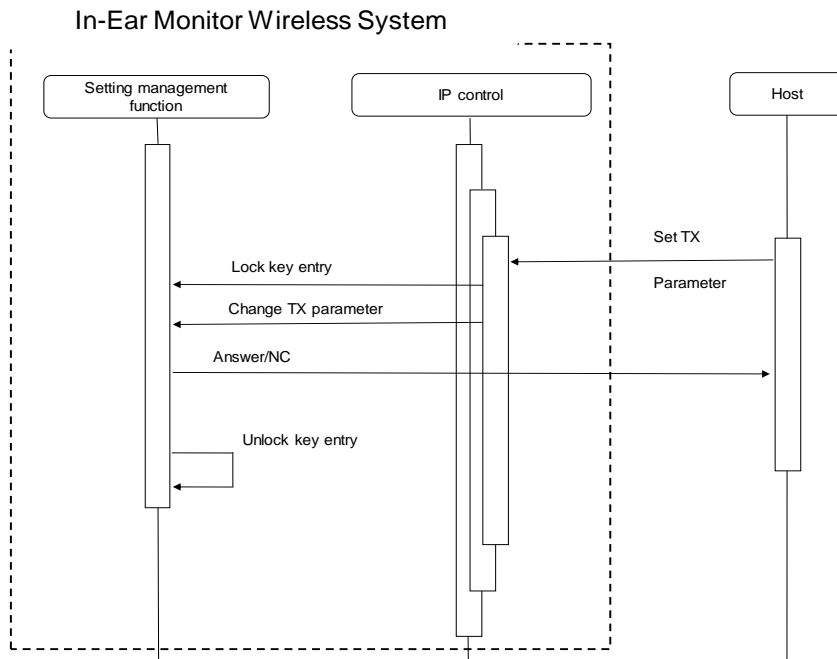
If connections exceeding the number of connections are attempted, the extra connection fails.

### 2.3.3 Control Sequence

#### 2.3.3.1 Set Command

Responding to a Set Command, the unit sends ACK/NAK to the sender.

<Example> The sequence of a parameter setting change request for the device is shown below.

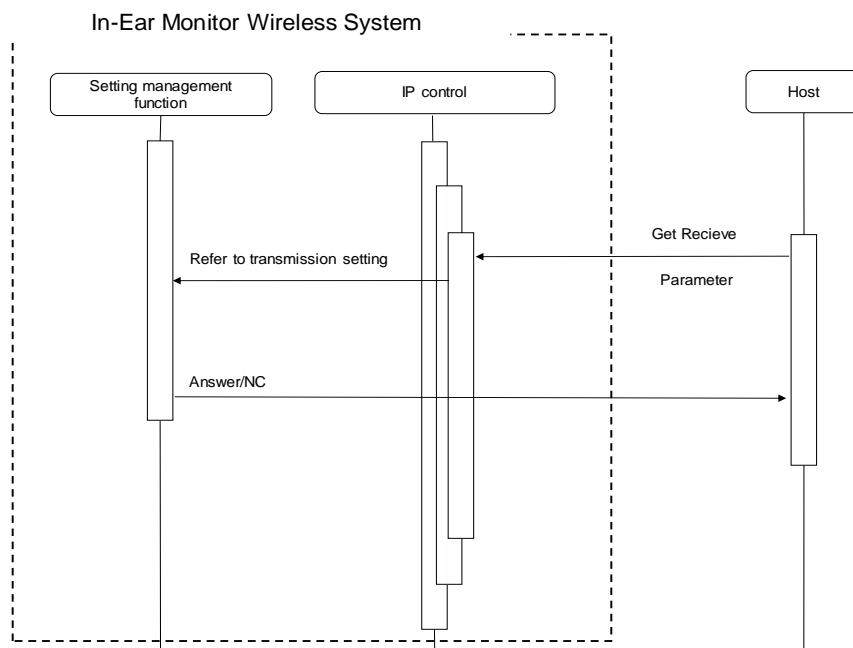


If an error occurs in a Set Command, such as a syntax error or incorrect parameter, an NAK command is sent to the sender. Key entry is also unlocked.

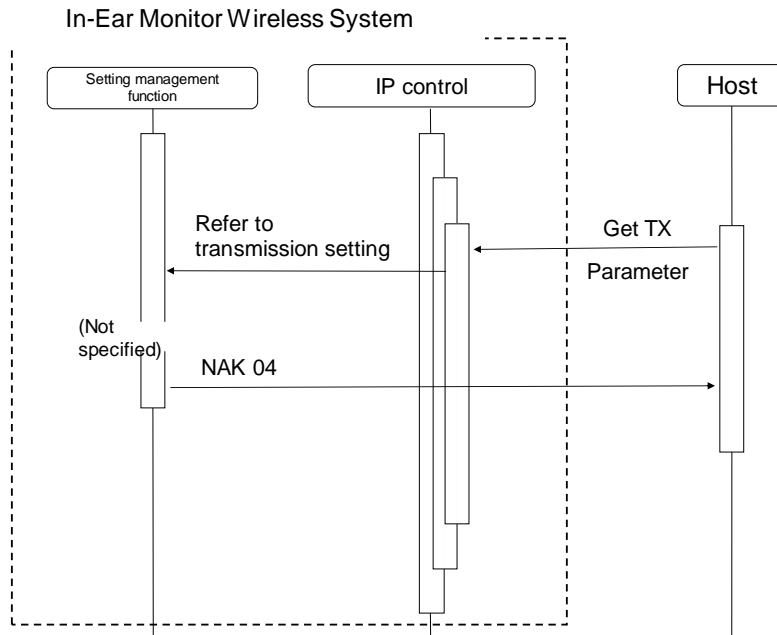
### 2.3.3.2 Get Command

Responding to a Get Command, the unit sends an Answer to the sender.

<Example> The sequence of a setting acquisition request for the device is shown below.



If an error occurs in a Get Command, such as a syntax error or incorrect parameter, an NAK command is sent to the sender.



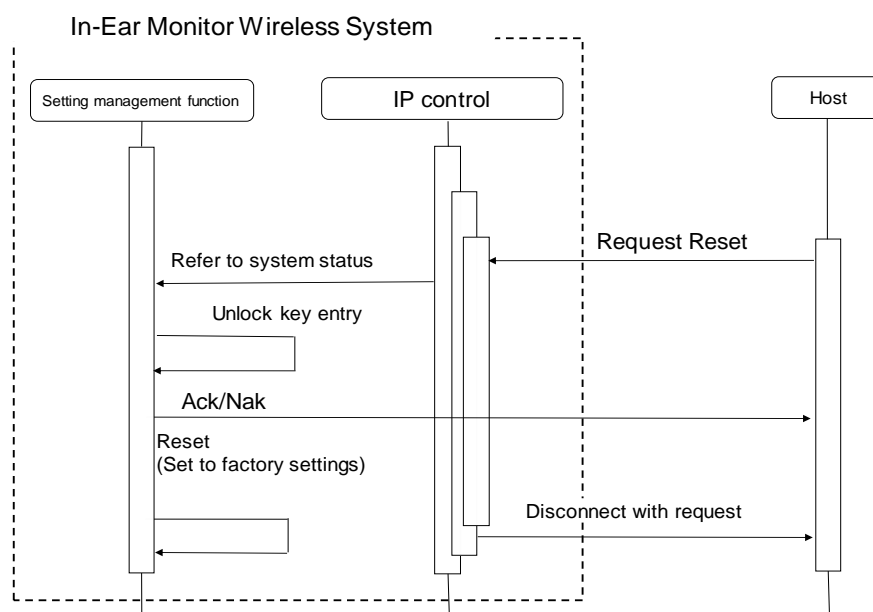
### 2.3.3.3 Request Command

The request command sends whether the command was accepted or not to the sender via ACK/NAK and then performs the requested process if it was accepted (ACK response).

There is a subsequent command available to send the measurement result to the sender.

#### [1] Command involving reset

<Example> The sequence of reset request (to factory settings) is shown below.

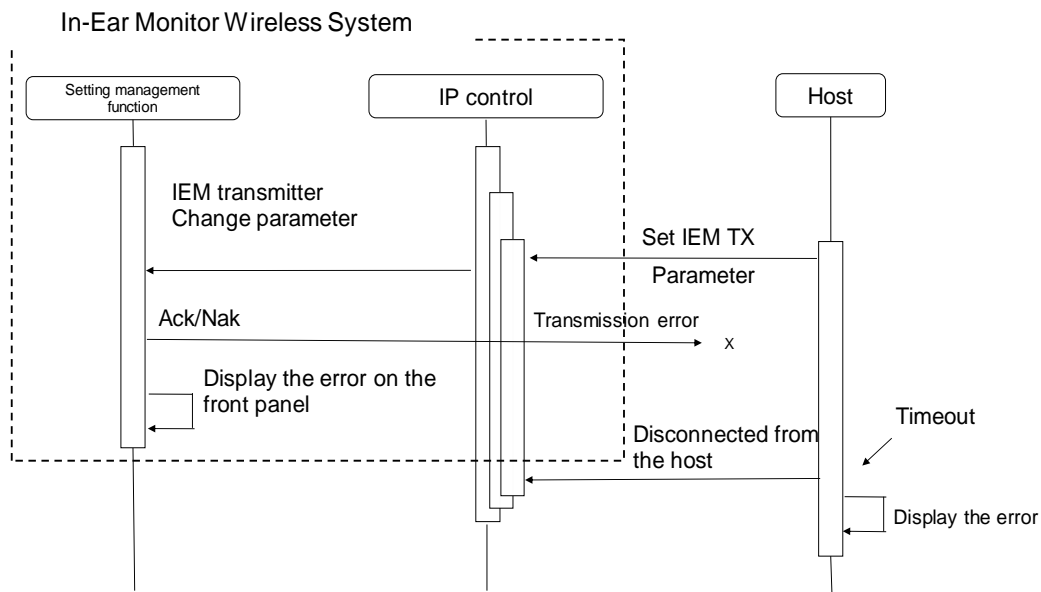


\* For NAK responses (telegraphic error, system busy status, etc.), the system is not reset. Key entry is also unlocked.

## 2.3.4 Communication Errors

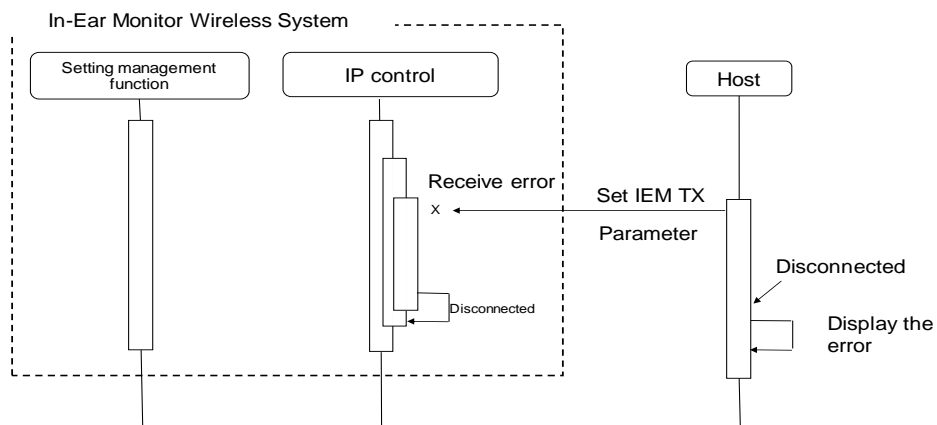
### 2.3.4.1 Transmission Errors

The following figure shows the sequence when an ACK/NAK transmission error occurs.



### 2.3.4.2 Receive Errors

The following figure shows the sequence when a command receive error occurs.



## 2.3.5 Communication End

The host can be disconnected at any timing when communications end.

When it is disconnected, the unit clears the corresponding connection state (Example: File transferring) and enters the connection wait state again. This occurs even if a cable is disconnected.

To communicate again, the host requests a connection.

## 2.4 UDP Communications

The information (status change notification) from the unit is sent via UDP protocol.

### 2.4.1 Communication Control

Refer to Chapter 2.3.1 for the communication control flow.

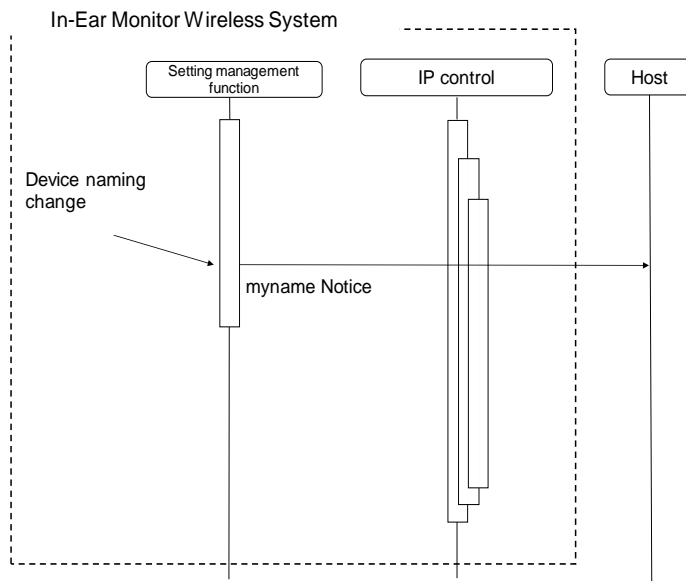
### 2.4.2 Communication Start

The host registers groups to the multicast address.

### 2.4.3 Control Sequence

If the unit status changes, a status change notification is sent.

<Example> The sequence of a device naming change notification is shown below.



### 2.4.4 Communication End

The host can unregister groups at any timing.

### 3 Command Outline

#### 3.1 Command List

No	Category	Command	Command Name	Remarks	Type			
					Set	Get	Req	Info
1	Model Info	ginfo	Model parameter acquisition			○		
2	System Setting	srfpw	RF power setting		○			
3		grfpw	RF power acquisition			○		
4		nrfpw	RF power notification					○
5		srlv	RF power level setting		○			
6		grlv	RF power level acquisition			○		
7		nrlv	RF power level notification					○
8		srfmd	Mode setting		○			
9		grfmd	Mode acquisition			○		
10		nrfmd	Mode notification					○
11		rprst	Preset resume request				○	
12		sprst	Preset save setting		○			
13		rfrst	Factory reset request				○	
14		salck	Auto lock setting		○			
15		galck	Auto lock acquisition			○		
16		nalck	Auto lock notification					○
17		sdial	Control dial setting		○			
18		gdial	Control dial acquisition			○		
19		ndial	Control dial notification					○
20		slock	Lock setting		○			
21		glock	Lock acquisition			○		
22		nlock	Lock notification					○

23		sbrig	Display brightness setting		○			
24		gbrig	Display brightness acquisition			○		
25		nbrig	Display brightness notification					○
26		saces	User access level setting		○			
27		gaces	User access level acquisition			○		
28		naces	User access level notification					○
29	Network	sipnt	IP network setting		○			
30		gipnt	IP network setting acquisition			○		
31		nipnt	IP network setting notification					○
32		sdvid	Transmitter ID number setting		○			
33		gdvid	Transmitter ID number acquisition			○		
34		ndvid	Transmitter ID number notification					○
35		sntfi	Notification setting		○			
36		gntfi	Notification acquisition			○		
37		nntfi	Notification setting notification					○
38		slvln	LVL Notify setting		○			
39		glvln	LVL Notify acquisition			○		
40		nlvln	LVL Notify notification					○
41		smlip	Multicast IP address setting		○			
42		gmlip	Multicast IP address acquisition			○		
43		nmlip	Multicast IP address notification					○
44		smlpt	Multicast port number setting		○			
45		gmlpt	Multicast port number acquisition			○		
46		nmlpt	Multicast port number notification					○
47		sslog	Syslog setting		○			
48		gslog	Syslog acquisition			○		
49		nslog	Syslog notification					○



50		snntp	NTP setting		○			
51		gnntp	NTP acquisition			○		
52		nnntp	NTP notification					○
53		ssadr	NTP server address setting		○			
54		gsadr	NTP server address acquisition			○		
55		nsadr	NTP server address notification					○
56		sntpp	NTP server port number setting		○			
57		gnntp	NTP server port number acquisition			○		
58		nnntp	NTP server port number notification					○
59		stmzn	NTP time zone setting		○			
60		gtmz	NTP time zone acquisition			○		
61		ntmzn	NTP time zone notification					○
62		sndst	Daylight saving time setting		○			
63		gndst	Daylight saving time acquisition			○		
64		nndst	Daylight saving time notification					○
65		sdstt	Daylight saving time start/end time setting		○			
66		gdstt	Daylight saving time start/end time acquisition			○		
67		ndstt	Daylight saving time start/end time notification					○
68	Audio Setting	sgain	Audio input level (sensitivity) setting		○			
69		ggain	Audio input level (sensitivity) acquisition			○		
70		ngain	Audio input level (sensitivity) notification					○
71	Name Setting	sname	Channel name setting		○			
72		gname	Channel name acquisition			○		
73		nname	Channel name notification					○
74	Frequency Setting	sfreq	Manual transmission frequency setting		○			
75		gfreq	Manual transmission frequency acquisition			○		

76		nfreq	Manual transmission frequency notification					○
77		sgrch	Group channel transmission frequency setting		○			
78		ggrch	Group channel transmission frequency acquisition			○		
79		ngrch	Group channel transmission frequency notification					○
80		sgced	User group channel edit setting		○			
81		ggced	User group channel acquisition			○		
82		ngced	User group channel edit notification					○
83	Others	nstpw	Power status change notification					○
84		rrbot	Reboot request				○	
85		nrbot	Reboot notification					○

## 4 Command Details

### 4.1 Model Info

#### 4.1.1 Model parameter acquisition

TX that received the model parameter information acquisition sends the model parameter information to the host via Answer.

[1] Get Command

The command format of the model parameter acquisition from the host is shown below.

ginfo\_O\_0000\_00\_NC\_↵

**Table 4-1 Command Format**

No	item	Description	type	value	value description	remarks
1	Command	Command string	string	ginfo		
2	HandShake Select	Sequence execution system	string	O		
3	Model ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter			No parameter	
7	End Character	Message end character	binary	0x0d	CR	

[2] Answer

The Answer command format from TX is shown below.

ginfo\_0000\_00\_NC\_"ATW-T3205","EG2","001.001.000","\_↵

**Table 4-2 Answer Command Format**

No	item	Description	type	value	value description	remarks
1	Command	Command string	string	ginfo		
2	Model ID	Model ID	string	0000	See 2.2.2.	
3	Unit ID	Unit ID	string	00	See 2.2.2.	
4	Continue Select	Divided message system	string	NC	No divided message	
5	Parameter	Parameter				
	Model Name	Model name	char	"	Beginning of character string	
			string	ASCII code	Name	16 characters
			char	"	End of character string	
	Band Code	Band code	char	"	Beginning of character string	
			string	ASCII code	Band code	4 characters
			char	"	End of character string	
	FW version	FW version	char	"	Beginning of character string	
			string	ASCII code	FW version	12 characters
			char	"	End of character string	
	Mod Code	Mod code	char	"	Beginning of character string	
			string	ASCII code	Mod code	6 characters
			char	"	End of character string	
6	End Character	Message end character	binary	0x0d	CR	

## 4.2 System Setting

### 4.2.1 RF power setting

After receiving the RF power setting, TX sends the processing results to the host via ACK or NAK.

[1] Set Command

The command format of the RF power setting from the host is shown below.

srfpw\_0S\_0000\_00\_NC\_1\_↓

**Table 4-3 Command Format**

No	Item	Description	type	value	value description	remarks
1	Command	Command string	string	srfpw		
2	HandShake Select	Sequence execution system	string	S		
3	Model ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter				
	RF Output	RF output	string	0	RF output OFF	
				1	RF output ON	
7	End Character	Message end character	binary	0x0d	CR	

[2] ACK/NAK

srfpw\_0000\_00\_NC\_ACK\_↓

**Table 4-4 Command Format**

No	item	Description	type	value	value description	remarks
1	Command	Command string	string	srfpw		
2	Model ID/Device ID	Model ID	string	0000	Not used	
3	Unit ID	Unit ID	string	00	Not used	
4	Continue Select	Divided message system	string	NC	No divided message	
5	ACK	ACK	string	ACK		
6	End Character	Message end character	binary	0x0d	CR	

srfpw\_0000\_00\_NC\_NAK\_02\_↓

**Table 4-5 Command Format**

No	item	Description	type	value	value description	remarks
1	Command	Command string	string	srfpw		
2	Model ID/Device ID	Model ID	string	0000	Not used	
3	Unit ID	Unit ID	string	00	Not used	
4	Continue Select	Divided message system	string	NC	No divided message	
5	ACK	ACK	string	NAK		
6	Error Code	Error code	string		See 2.2.4.1.	
7	End Character	Message end character	binary	0x0d	CR	

#### 4.2.2 RF power acquisition

After receiving the RF power acquisition, TX sends the RF power to the host via Answer.

##### [1] Get Command

The command format of the RF power acquisition from the host is shown below.

```
grfpw_O_0000_00_NC_↵
```

**Table 4-6 Command Format**

No	Item	Description	type	value	value description	remarks
1	Command	Command string	string	grfpw		
2	HandShake Select	Sequence execution system	string	O		
3	Model ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter			No parameter	
7	End Character	Message end character	binary	0x0d	CR	

##### [2] Answer

The Answer command format from TX is shown below.

```
grfpw_0000_00_NC_0_↵
```

**Table 4-7 Command Format**

No	Item	Description	type	value	value description	remarks
1	Command	Command string	string	grfpw		
2	Model ID	Model ID	string	0000	Not used	
3	Unit ID	Unit ID	string	00	Not used	
4	Continue Select	Divided message system	string	NC	No divided message	
5	Parameter	Parameter				
	RF Output	RF output	string	0	RF output OFF	
				1	RF output ON	
6	End Character	Message end character	binary	0x0d	CR	

#### 4.2.3 RF power notification

The RF power notification is sent when TX changes the RF power setting.

It is not sent when the notification mode is 0 (OFF).

[1] Information

MD\_nrfpw\_0000\_00\_NC\_1\_↓

**Table 4-8 Command Format**

No	Item	Description	type	value	value description	remarks
1	Modify	MD	string	MD		
2	Command	Command string	string	nrfpw		
3	Model ID/Device ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter				
	RF Power Output	RF output	string	0	RF output OFF	
				1	RF output ON	
7	End Character	Message end character	binary	0x0d	CR	

#### 4.2.4 RF power level setting

After receiving the RF power level setting, TX sends the processing results to the host via ACK or NAK.

The MAX RF power level (100 mW) can be set by allowing TX to be set in the service mode in advance. See the table below.

TX state	RF power level
Default	0:LOW / 1:HIGH
Configured in the service mode	0:LOW / 1:HIGH / 2:MAX

#### [1] Set Command

The command format of the RF power level setting from the host is shown below.

srflv\_S\_0000\_00\_NC\_0\_↵

**Table 4-9 Command Format**

No	Item	Description	type	value	value description	remarks
1	Command	Command string	string	srflv		
2	HandShake Select	Sequence execution system	string	S		
3	Model ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter				
		RF power level	string	0	LOW	
				1	HIGH	
				2	MAX	
7	End Character	Message end character	binary	0x0d	CR	

#### [2] ACK/NAK

See RF power setting [2].

#### 4.2.5 RF power level acquisition

After receiving the RF power level acquisition, TX sends the RF power level to the host via Answer.

##### [1] Get Command

The command format of the RF power level acquisition from the host is shown below.

grflv\_O\_0000\_00\_NC\_↓

**Table 4-10 Command Format**

No	item	Description	type	value	value description	remarks
1	Command	Command string	string	grflv		
2	HandShake Select	Sequence execution system	string	O		
3	Model ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter			No parameter	
7	End Character	Message end character	binary	0x0d	CR	

##### [2] Answer

The Answer command format from TX is shown below.

grflv\_0000\_00\_NC\_0\_↓

**Table 4-11 Answer Command Format**

No	item	Description	type	value	value description	remarks
1	Command	Command string	string	grflv		
2	Model ID	Model ID	string	0000	Not used	
3	Unit ID	Unit ID	string	00	Not used	
4	Continue Select	Divided message system	string	NC	No divided message	
5	Parameter	Parameter				
		RF Power Level	string	0	LOW	
				1	HIGH	
				2	MAX	



No	item	Description	type	value	value description	remarks
6	End Character	Message end character	binary	0x0d	CR	

#### 4.2.6 RF power level notification

The RF power level notification is sent when TX changes the RF power level.

It is not sent when the notification mode is 0 (OFF).

[1] Information

MD\_nrflv\_0000\_00\_NC\_0\_↓

**Table 4-12 Command Format**

No	item	Description	type	value	value description	remarks
1	Modify	MD	string	MD		
2	Command	Command string	string	nrflv		
3	Model ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter				
	RF Power	RF power level	string	0	LOW	
				1	HIGH	
				2	MAX	
7	End Character	Message end character	binary	0x0d	CR	

#### 4.2.7 Mode setting

After receiving the mode setting, TX sends the processing results to the host via ACK or NAK.

[1] The command format of the mode setting from the host is shown below.

srfmd\_S\_0000\_00\_NC\_0\_↓

**Table 4-13 Command Format**

No	Item	Description	type	value	value description	remarks
1	Command	Command string	string	srfgmd		
2	HandShake Select	Sequence execution system	string	S		
3	Model ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter				
	Mode	Mode	string	0	STEREO	
				1	MONO	
				2	3000LINK	
7	End Character	Message end character	binary	0x0d	CR	

**[2] ACK/NAK**

See RF power setting [2].

**4.2.8 Mode acquisition**

After receiving the mode acquisition, TX sends the mode to the host via Answer.

**[1] Get Command**

The command format of the mode acquisition from the host is shown below.

grfgmd\_O\_0000\_00\_NC\_↵

**Table 4-14 Command Format**

No	item	Description	type	value	value description	remarks
1	Command	Command string	string	grfgmd		
2	Handshake Select	Sequence execution system	string	O		
3	Model ID/Device ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter			No parameter	

No	item	Description	type	value	value description	remarks
7	End Character	Message end character	binary	0x0d	CR	

[2] Answer

The Answer command format from TX is shown below.

grfmd\_0000\_00\_NC\_0\_↓

**Table 4-15 Command Format**

No	Item	Description	type	value	value description	remarks
1	Command	Command string	string	grfmd		
2	Model ID	Model ID	string	0000	Not used	
3	Unit ID	Unit ID	string	00	Not used	
4	Continue Select	Divided message system	string	NC	No divided message	
5	Parameter	Parameter				
	Mode	Mode	string	0	STEREO	
				1	MONO	
				2	3000LINK	
6	End Character	Message end character	binary	0x0d	CR	

#### 4.2.9 Mode notification

The mode notification is sent when TX changes the mode.

It is not sent when the notification mode is 0 (OFF).

[1] Information

MD\_nrfmd\_0000\_00\_NC\_0\_↓

**Table 4-16 Command Format**

No	Item	Description	type	value	value description	remarks
1	Modify	Command string	string	MD		
2	Command	Sequence execution system	string	nrfmd		

No	Item	Description	type	value	value description	remarks
3	Model ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter				
	Mode	Mode	string	0	STEREO	
				1	MONO	
				2	3000LINK	
7	End Character	Message end character	binary	0x0d	CR	

#### 4.2.10 Preset resume request

After receiving the preset resume request, TX sends the processing result to the host via ACK or NAK.

##### [1] Request Command

The command format of the preset resume request from the host is shown below.

rprst\_S\_0000\_00\_NC\_↵

**Table 4-17 Command Format**

No	item	Description	type	value	value description	remarks
1	Command	Command string	string	rprst		
2	Handshake Select	Sequence execution system	string	S		
3	Model ID/Device ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter			No parameter	
7	End Character	Message end character	binary	0x0d	CR	

When a preset resume request is received without saving the preset, TX will return to the factory settings.

##### [2] ACK/NAK

See RF power setting [2].

#### 4.2.11 Preset save setting

After receiving the preset save setting, TX sends the processing results to the host via ACK or NAK.

[1] Set Command

sprst\_S\_0000\_00\_NC\_↓

**Table 4-18 Command Format**

No	item	Description	type	value	value description	remarks
1	Command	Command string	string	sprst		
2	Handshake Select	Sequence execution system	string	S		
3	Model ID/Device ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter			No parameter	
7	End Character	Message end character	binary	0x0d	CR	

[2] ACK/NAK

See RF power setting [2].

#### 4.2.12 Factory reset request

After receiving the factory reset request, TX sends the processing result to the host via ACK or NAK.

[1] Request Command

rfrst\_S\_0000\_00\_NC\_↓

**Table 4-19 Command Format**

No	Item	Description	type	value	value description	remarks
1	Command	Command string	string	rfrst		
2	HandShake Select	Sequence execution system	string	S		
3	Model ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter			No parameter	

No	Item	Description	type	value	value description	remarks
7	End Character	Message end character	binary	0x0d	CR	

[2] ACK/NAK

See RF power setting [2].

#### 4.2.13 Auto lock setting

After receiving the auto lock setting, TX sends the processing results to the host via ACK/NAK.

[1] Set Command

The command format of the auto lock setting from the host is shown below.

salck\_S\_0000\_00\_NC\_0\_↵

**Table 4-20 Command Format**

No	Item	Description	type	value	value description	remarks
1	Command	Command string	string	salck		
2	HandShake Select	Sequence execution system	string	S		
3	Model ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter				
	Auto Lock	Auto lock	string	0	Disable	
				1	Enable	
7	End Character	Message end character	binary	0x0d	CR	

[2] ACK/NAK

See RF power setting [2].

#### 4.2.14 Auto lock acquisition

After receiving the auto lock acquisition, TX sends the auto lock to the host via Answer.

[1] Get Command

The command format of the auto lock acquisition from the host is shown below.

galck\_O\_0000\_00\_NC\_↓

**Table 4-21 Command Format**

No	Item	Description	type	value	value description	remarks
1	Command	Command string	string	galck		
2	HandShake Select	Sequence execution system	string	O		
3	Model ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter			No parameter	
7	End Character	Message end character	binary	0x0d	CR	

[2] Answer

The Answer command format from TX is shown below.

galck\_0000\_00\_NC\_0\_↓

**Table 4-22 Command Format**

No	Item	Description	type	value	value description	remarks
1	Command	Command string	string	galck		
2	Model ID	Model ID	string	0000	Not used	
3	Unit ID	Unit ID	string	00	Not used	
4	Continue Select	Divided message system	string	NC	No divided message	
5	Parameter	Parameter				
	Auto Lock	Auto lock	string	0	Disable	
				1	Enable	
6	End Character	Message end character	binary	0x0d	CR	

#### 4.2.15 Auto lock notification

The auto lock notification is sent when TX changes the auto lock.

It is not sent when the notification mode setting is 0 (OFF).

[1] Information

MD\_nalck\_0000\_00\_NC\_0\_↓

**Table 4-23 Command Format**

No	item	Description	type	value	value description	remarks
1	Modify	MD	string	MD		
2	Command	Command string	string	nalck		
3	Model ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter				
	Auto Lock	Auto lock	string	0	Disable	
				1	Enable	
7	End Character	Message end character	binary	0x0d	CR	

#### 4.2.16 Control dial setting

After receiving the control dial setting, TX sends the processing results to the host via ACK/NAK.

[1] Set Command

The command format of the control dial setting from the host is shown below.

sdial\_S\_0000\_00\_NC\_0\_↓

**Table 4-24 Command Format**

No	Item	Description	type	value	value description	remarks
1	Command	Command string	string	sdial		
2	HandShake Select	Sequence execution system	string	S		
3	Model ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	



No	Item	Description	type	value	value description	remarks
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter				
	Dial	Motion when turning the dial	string	0	Default	
				1	Invert	
7	End Character	Message end character	binary	0x0d	CR	

[2] ACK/NAK

See RF power setting [2].

#### 4.2.17 Control dial acquisition

After receiving the control dial acquisition, TX sends the control dial to the host via Answer.

[1] Get Command

The command format of the control dial acquisition from the host is shown below.

gdial\_O\_0000\_00\_NC\_↵

**Table 4-25 Command Format**

No	item	Description	type	value	value description	remarks
1	Command	Command string	string	gdial		
2	HandShake Select	Sequence execution system	string	O		
3	Model ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter			No parameter	
7	End Character	Message end character	binary	0x0d	CR	

[2] Answer

The Answer command format from TX is shown below.

gdial\_0000\_00\_NC\_0\_↵

**Table 4-26 Answer Command Format**

No	item	Description	type	value	value description	remarks
1	Command	Command string	string	gdial		
2	Device ID	Device number	string	0000	Not used	
3	Model ID	Model ID	string	00	Not used	
4	Unit ID	Unit ID	string	NC	No divided message	
5	Parameter	Parameter				
	Dial	Motion when turning the dial	string	0	Default	
				1	Invert	
6	End Character	Message end character	binary	0x0d	CR	

#### 4.2.18 Control dial notification

The control dial notification is sent when TX changes the control dial.

It is not sent when the notification mode setting is 0 (OFF).

[1] Information

MD\_ndial\_0000\_00\_NC\_0\_↓

**Table 4-27 Command Format**

No	item	Description	type	value	value description	remarks
1	Modify	MD	string	MD		
2	Command	Command string	string	ndial		
3	Model ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter				
	Dial	Motion when turning the dial	string	0	Default	
				1	Invert	
7	End Character	Message end character	binary	0x0d	CR	

#### 4.2.19 Lock setting

After receiving the lock setting, TX sends the processing results to the host via ACK/NAK.

##### [1] Set Command

The command format of the lock setting from the host is shown below.

slock\_S\_0000\_00\_NC\_0\_↵

**Table 4-28 Command Format**

No	Item	Description	type	value	value description	remarks
1	Command	Command string	string	slock		
2	HandShake Select	Sequence execution system	string	S		
3	Model ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter				
	Lock	Lock	string	0	Disable	
				1	Enable	
7	End Character	Message end character	binary	0x0d	CR	

##### [2] ACK/NAK

See RF power setting [2].

#### 4.2.20 Lock acquisition

After receiving the lock acquisition, TX sends the lock to the host via Answer.

##### [1] Get Command

The command format of the lock acquisition from the host is shown below.

glock\_O\_0000\_00\_NC\_↵

**Table 4-29 Command Format**

No	Item	Description	type	value	value description	remarks
1	Command	Command string	string	glock		
2	HandShake Select	Sequence execution system	string	O		
3	Model ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter			No parameter	
7	End Character	Message end character	binary	0x0d	CR	

[2] Answer

The Answer command format from TX is shown below.

glock\_0000\_00\_NC\_0\_↓

**Table 4-30 Command Format**

No	Item	Description	type	value	value description	remarks
1	Command	Command string	string	glock		
2	Model ID	Model ID	string	0000	Not used	
3	Unit ID	Unit ID	string	00	Not used	
4	Continue Select	Divided message system	string	NC	No divided message	
5	Parameter	Parameter				
	Lock	Lock	string	0	Disable	
				1	Enable	
6	End Character	Message end character	binary	0x0d	CR	

#### 4.2.21 Lock notification

The lock notification is sent when TX changes the lock.

It is not sent when the notification mode setting is 0 (OFF).

[1] Information

MD\_nlock\_0000\_00\_NC\_0\_↓

**Table 4-31 Command Format**

No	item	Description	type	value	value description	remarks
1	Modify	MD	string	MD		
2	Command	Command string	string	nlock		
3	Model ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter				
	Lock	Lock	string	0	Disable	
				1	Enable	
7	End Character	Message end character	binary	0x0d	CR	

#### 4.2.22 Display brightness setting

After receiving the display brightness setting, TX sends the processing results to the host via ACK/NAK.

[1] Set Command

The command format of the display brightness setting from the host is shown below.

sbrig\_S\_0000\_00\_NC\_0\_↓

**Table 4-32 Command Format**

No	Item	Description	type	value	value description	remarks
1	Command	Command string	string	sbrig		
2	HandShake Select	Sequence execution system	string	S		
3	Model ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	

No	Item	Description	type	value	value description	remarks
6	Parameter	Parameter				
	Brightness	Brightness	string	0	LOW	
				1	HIGH	
7	End Character	Message end character	binary	0x0d	CR	

[2] ACK/NAK

See RF power setting [2].

#### 4.2.23 Display brightness acquisition

After receiving the display brightness acquisition, TX sends the display brightness to the host via Answer.

[1] Get Command

The command format of the display brightness acquisition from the host is shown below.

gbrig\_O\_0000\_00\_NC\_↵

**Table 4-33 Command Format**

No	Item	Description	type	value	value description	remarks
1	Command	Command string	string	gbrig		
2	HandShake Select	Sequence execution system	string	O		
3	Model ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter			No parameter	
7	End Character	Message end character	binary	0x0d	CR	

[2] Answer

The Answer command format from TX is shown below.

gbrig\_0000\_00\_NC\_0\_↵

**Table 4-34 Command Format**

No	Item	Description	type	value	value description	remarks
1	Command	Command string	string	gbrig		
2	Model ID	Model ID	string	0000	Not used	
3	Unit ID	Unit ID	string	00	Not used	
4	Continue Select	Divided message system	string	NC	No divided message	
5	Parameter	Parameter				
	Brightness	Brightness	string	0	LOW	
				1	HIGH	
6	End Character	Message end character	binary	0x0d	CR	

#### 4.2.24 Display brightness notification

The display brightness notification is sent when TX changes the display brightness.

It is not sent when the notification mode setting is 0 (OFF).

[1] Information

MD\_nbrig\_0000\_00\_NC\_0\_↓

**Table 4-35 Command Format**

No	item	Description	type	value	value description	remarks
1	Modify	MD	string	MD		
2	Command	Command string	string	nlock		
3	Model ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter				
	Brightness	Brightness	string	0	LOW	
				1	HIGH	

No	item	Description	type	value	value description	remarks
7	End Character	Message end character	binary	0x0d	CR	

#### 4.2.25 User access level setting

After receiving the user access level setting, TX sends the processing results to the host via ACK or NAK.

##### [1] Set Command

The command format of the user access level setting from the host is shown below.

saces\_S\_0000\_00\_NC\_0\_↓

**Table 4-36 Command Format**

No	Item	Description	type	value	value description	remarks
1	Command	Command string	string	saces		
2	HandShake Select	Sequence execution system	string	S		
3	Model ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter				
	Access	User access level	string	0	Free Tuning	
				1	User Group Only	
7	End Character	Message end character	binary	0x0d	CR	

##### [2] ACK/NAK

See RF power setting [2].

#### 4.2.26 User access level acquisition

After receiving the user access level acquisition, TX sends the user access level to the host via Answer.

##### [1] Get Command

The command format of the user access level acquisition from the host is shown below.

gaces\_O\_0000\_00\_NC\_↓



**Table 4-37 Command Format**

No	Item	Description	type	value	value description	remarks
1	Command	Command string	string	gaces		
2	HandShake Select	Sequence execution system	string	O		
3	Model ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter			No parameter	
7	End Character	Message end character	binary	0x0d	CR	

[2] Answer

The Answer command format from TX is shown below.

gaces\_0000\_00\_NC\_0\_↓

**Table 4-38 Command Format**

No	Item	Description	type	value	value description	remarks
1	Command	Command string	string	gaces		
2	Model ID	Model ID	string	0000	Not used	
3	Unit ID	Unit ID	string	00	Not used	
4	Continue Select	Divided message system	string	NC	No divided message	
5	Parameter	Parameter				
	Access	User access level	string	0	Free Tuning	
				1	User Group Only	
6	End Character	Message end character	binary	0x0d	CR	

#### 4.2.27 User access level notification

The user access level notification is sent when TX changes the user access level.

It is not sent when the notification mode setting is 0 (OFF).

[1] Information

MD\_naces\_0000\_00\_NC\_0\_↓

**Table 4-39 Command Format**

No	item	Description	type	value	value description	remarks
1	Modify	MD	string	MD		
2	Command	Command string	string	naces		
3	Model ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter				
	Access	User access level	string	0	Free Tuning	
				1	User Group Only	
7	End Character	Message end character	binary	0x0d	CR	

## 4.3 Network

### 4.3.1 IP network setting

After receiving the IP network setting, TX sends the processing results to the host via ACK or NAK.

The parameters are reflected after a reboot. A reboot is required to properly reflect the setting changes.

[1] Set Command

The command format of the IP network setting from the host is shown below.

sipnt\_S\_0000\_00\_NC\_1,192.168.0.27,255.255.255.0,192.168.0.0.2,1\_↓

**Table 4-40 Command Format**

No	item	Description	type	value	value description	remarks
1	Command	Command string	string	sipnt		
2	Handshake Select	Sequence execution system	string	S		
3	Model ID/Device ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	

No	item	Description	type	value	value description	remarks
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter				
	IP config mode	IP address decision method	string	0	Auto	
				1	Static	
	IP address	IP address	string	0.0.0.0 to 255.255.255.255	IP address	
	Subnet mask	Subnet mask	string	0.0.0.0 to 255.255.255.255	Subnet mask	
	Gateway address	Default gateway	string	0.0.0.0 to 255.255.255.255	Default gateway	
	UPnP(Device auto-detection)	UPnP (device auto-detection)	string	0	OFF	
				1	ON	
7	End Character	Message end character	binary	0x0d	CR	

[2] ACK/NAK

See RF power setting [2].

#### 4.3.2 IP network information acquisition

After receiving the IP network information acquisition, TX sends the IP network information to the host via Answer.

[1] Get Command

The command format of the IP network information acquisition from the host is shown below.

gipnt\_O\_0000\_00\_NC\_↓

**Table 4-41 Command Format**

No	item	Description	type	value	value description	remarks
1	Command	Command string	string	gipnt		
2	Handshake Select	Sequence execution system	string	O		
3	Model ID/Device ID	Model ID	string	0000	Not used	

No	item	Description	type	value	value description	remarks
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter			No parameter	
7	End Character	Message end character	binary	0x0d	CR	

[2] Answer

The Answer command format from TX is shown below.

```
gipnt_0000_00_NC_0,192.168.0.27,255.255.255.0,192.168.0.20,1,
00-0A-45-19-12-B2_↵
```

**Table 4-42 Answer Command Format**

No	item	Description	type	value	value description	remarks
1	Command	Command string	string	gipnt		
2	Model ID/Device ID	Model ID	string	0000	Not used	
3	Unit ID	Unit ID	string	00	Not used	
4	Continue Select	Divided message system	string	NC	No divided message	
5	Parameter	Parameter				
	IP config mode	IP address decision method	string	0	Auto	
				1	Static	
	IP address	IP address	string	0.0.0.0 to 255.255.255.255	IP address	
	Subnet mask	Subnet mask	string	0.0.0.0 to 255.255.255.255	Subnet mask	
	Gateway address	Default gateway	string	0.0.0.0 to 255.255.255.255	Default gateway	
	UPnP(Device auto-detection)	UPnP (device auto-detection)	string	0	OFF	
				1	ON	
	Mac address	MAC address	string	XX-XX-XX-YY-YY-YY	MAC address	

No	item	Description	type	value	value description	remarks
6	End Character	Message end character	binary	0x0d	CR	

#### 4.3.3 IP network information notification

The IP network information notification is sent when TX changes the IP network information.

It is not sent when the IP network information notification from the host is 0 (OFF).

[1] Information

MD\_nipnt\_0000\_00\_NC\_0,192.168.0.27,255.255.255.0,192.168.0.2,1,  
00-0A-45-19-12-B2\_

**Table 4-43 Command Format**

No	item	Description	type	value	value description	remarks
1	Modify	MD	string	MD		
2	Command	Command string	string	nipnt		
3	Model ID/Device ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter				
	IP config mode	IP address decision method	string	0	Auto	
				1	Static	
	IP address	IP address	string	0.0.0.0 to 255.255.255.255	IP address	
	Subnet mask	Subnet mask	string	0.0.0.0 to 255.255.255.255	Subnet mask	
	Gateway address	Default gateway	string	0.0.0.0 to 255.255.255.255	Default gateway	
	UPnP(Device auto-detection)	UPnP (device auto-detection)	string	0	OFF	
				1	ON	
	Mac address	MAC address	string	XX-XX-XX-YY-YY-YY	MAC address	

No	item	Description	type	value	value description	remarks
7	End Character	Message end character	binary	0x0d	CR	

#### 4.3.4 Transmitter ID number (Device ID) setting

After receiving the transmitter ID number (Device ID) setting, TX sends the processing results to the host via ACK/NAK.

[1] Set Command

The command format of the Device ID setting from the host is shown below.

```
sdvid_S_0000_00_NC_0_↵
```

**Table 4-44 Command Format**

No	Item	Description	type	value	value description	remarks
1	Command	Command string	string	sdvid		
2	HandShake Select	Sequence execution system	string	S		
3	Model ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter				
	Device ID	Transmitter ID number	string	0 to 255	Transmitter ID number	
7	End Character	Message end character	binary	0x0d	CR	

[2] ACK/NAK

See RF power setting [2].

#### 4.3.5 Transmitter ID number (Device ID) acquisition

After receiving the transmitter ID number (Device ID) acquisition, TX sends the transmitter ID number (Device ID) to the host via Answer.

[1] Get Command

The command format of the transmitter ID number (Device ID) acquisition from the host is shown below.

```
gdvid_O_0000_00_NC_↵
```

**Table 4-45 Command Format**

No	Item	Description	type	value	value description	remarks
1	Command	Command string	string	gdvid		
2	HandShake Select	Sequence execution system	string	O		
3	Model ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter			No parameter	
7	End Character	Message end character	binary	0x0d	CR	

[2] Answer

The Answer command format from TX is shown below.

gdvid\_0000\_00\_NC\_0\_↵

**Table 4-46 Command Format**

No	Item	Description	type	value	value description	remarks
1	Command	Command string	string	gdvid		
2	Model ID	Model ID	string	0000	Not used	
3	Unit ID	Unit ID	string	00	Not used	
4	Continue Select	Divided message system	string	NC	No divided message	
5	Parameter	Parameter				
	Device ID	Transmitter ID number	string	0 to 255	Transmitter ID number	
6	End Character	Message end character	binary	0x0d	CR	

#### 4.3.6 Transmitter ID number (Device ID) notification

The transmitter ID number (Device ID) notification is sent when TX changes the transmitter ID number (Device ID).

It is not sent when the notification mode setting is 0 (OFF).

[1] Information

MD\_ndvid\_0000\_00\_NC\_0\_↵

**Table 4-47 Command Format**

No	item	Description	type	value	value description	remarks
1	Modify	MD	string	MD		
2	Command	Command string	string	ndvid		
3	Model ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter				
	Device ID	Transmitter ID number	string	0 to 255	Transmitter ID number	
7	End Character	Message end character	binary	0x0d	CR	

#### 4.3.7 UDP notification setting upon setting change

After receiving the UDP notification setting upon setting change, TX sends the processing results to the host via ACK/NAK.

##### [1] Set Command

The command format of the UDP notification setting upon setting change from the host is shown below.

sntfi\_S\_0000\_00\_NC\_0\_↓

**Table 4-48 Command Format**

No	Item	Description	type	value	value description	remarks
1	Command	Command string	string	sntfi		
2	HandShake Select	Sequence execution system	string	S		
3	Model ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter				
	Notification	Notification	string	0	OFF	
				1	ON	



No	Item	Description	type	value	value description	remarks
7	End Character	Message end character	binary	0x0d	CR	

[2] ACK/NAK

See RF power setting [2].

#### 4.3.8 UDP notification setting acquisition upon setting change

After receiving the UDP notification setting acquisition upon setting change, TX sends the UDP notification setting upon setting change to the host via Answer.

[1] Get Command

The command format of the notification setting acquisition from the host is shown below.

gntfi\_O\_0000\_00\_NC\_↵

**Table 4-49 Command Format**

No	Item	Description	type	value	value description	remarks
1	Command	Command string	string	gntfi		
2	HandShake Select	Sequence execution system	string	O		
3	Model ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter			No parameter	
7	End Character	Message end character	binary	0x0d	CR	

[2] Answer

The Answer command format from TX is shown below.

gntfi\_0000\_00\_NC\_0\_↵

**Table 4-50 Command Format**

No	Item	Description	type	value	value description	remarks
1	Command	Command string	string	gntfi		
2	Model ID	Model ID	string	0000	Not used	

No	Item	Description	type	value	value description	remarks
3	Unit ID	Unit ID	string	00	Not used	
4	Continue Select	Divided message system	string	NC	No divided message	
5	Parameter	Parameter				
	Notification	Notification	string	0	OFF	
				1	ON	
6	End Character	Message end character	binary	0x0d	CR	

#### 4.3.9 UDP notification setting notification upon setting change

The UDP notification setting notification upon setting change is sent when TX changes the UDP notification setting upon setting change.

It is not sent when the notification setting is 0 (OFF).

[1] Information

MD\_nntfi\_0000\_00\_NC\_0\_↓

**Table 4-51 Command Format**

No	item	Description	type	value	value description	remarks
1	Modify	MD	string	MD		
2	Command	Command string	string	nntfi		
3	Model ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter				
	Notification	Notification	string	0	OFF	
				1	ON	
7	End Character	Message end character	binary	0x0d	CR	

#### 4.3.10 LVL Notify setting

After receiving the LVL Notify setting, TX sends the processing results to the host via ACK/NAK.

(LVL Notify = Setting whether to include the AF/RF level in the notification from TX)

[1] Set Command

The command format of the LVL Notify setting from the host is shown below.

slvln\_ S \_0000 \_00 \_NC \_0 \_↵

**Table 4-52 Command Format**

No	Item	Description	type	value	value description	remarks
1	Command	Command string	string	slvln		
2	HandShake Select	Sequence execution system	string	S		
3	Model ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter				
	LVL Notify	LVL Notify	string	0	OFF	
				1	ON	
7	End Character	Message end character	binary	0x0d	CR	

[2] ACK/NAK

See RF power setting [2].

#### 4.3.11 LVL Notify acquisition

After receiving the LVL Notify acquisition, TX sends the LVL Notify to the host via Answer.

[1] Get Command

The command format of the LVL Notify acquisition from the host is shown below.

glvln\_ O \_0000 \_00 \_NC \_↵

**Table 4-53 Command Format**

No	Item	Description	type	value	value description	remarks
1	Command	Command string	string	glvln		
2	HandShake Select	Sequence execution system	string	O		
3	Model ID	Model ID	string	0000	Not used	

No	Item	Description	type	value	value description	remarks
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter			No parameter	
7	End Character	Message end character	binary	0x0d	CR	

[2] Answer

The Answer command format from TX is shown below.

glvln\_0000\_00\_NC\_0\_↵

**Table 4-54 Command Format**

No	Item	Description	type	value	value description	remarks
1	Command	Command string	string	glvln		
2	Model ID	Model ID	string	0000	Not used	
3	Unit ID	Unit ID	string	00	Not used	
4	Continue Select	Divided message system	string	NC	No divided message	
5	Parameter	Parameter				
	LVL Notify	LVL Notify	string	0	OFF	
				1	ON	
6	End Character	Message end character	binary	0x0d	CR	

#### 4.3.12 LVL Notify notification

The LVL Notify notification is sent when TX changes the LVL Notify.

It is not sent when the notification mode setting is 0 (OFF).

[1] Information

MD\_nlvln\_0000\_00\_NC\_0\_↵

**Table 4-55 Command Format**

No	item	Description	type	value	value description	remarks
1	Modify	MD	string	MD		
2	Command	Command string	string	nlvln		
3	Model ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter				
	LVL Notify	LVL Notify ID	string	0	OFF	
				1	ON	
7	End Character	Message end character	binary	0x0d	CR	

#### 4.3.13 Level notification

A level notification is sent periodically from TX.

It is notified at the interval set in the level notification interval setting change request. (The default is 100 msec.)

It is not sent when Notification of the REMOTE Control setting is OFF (0) or when LVL Notify is OFF (0).

[1] Information

MD\_narlv\_0000\_00\_NC\_07.10.0\_↓

**Table 4-56 Command Format**

No	item	Description	type	value	value description	remarks
1	Modify	MD	string	MD		
2	Command	Command string	string	narlv		
3	Model ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	

No	item	Description	type	value	value description	remarks
6	Parameter	Parameter				
	Audio Lch Meter	Audio Lch level meter	string	nn	1 to 16	For details, see AF Level Table in Appendix.
	Audio Rch Meter	Audio Rch level meter	string	nn	1 to 16	This is disabled when the mode setting is MONO or 3000LINK.
			string	0		0 (fixed)
7	End Character	Message end character	binary	0x0d	CR	

#### 4.3.14 Multicast address setting

After receiving the multicast address setting, TX sends the processing results to the host via ACK or NAK.

The parameters are reflected after a reboot. A reboot is required to properly reflect the setting changes.

##### [1] Set Command

The command format of the multicast address setting from the host is shown below.

smlip\_ S\_0000\_00\_NC\_239.0.0.100\_↵

**Table 4-57 Command Format**

No	item	Description	type	value	value description	remarks
1	Command	Command string	string	smlip		
2	Handshake Select	Sequence execution system	string	S		
3	Model ID/Device ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter				
	Multicast address	Multicast address	string	224.0.0.0 or higher 239.255.255.255	Multicast address	
7	End Character	Message end character	binary	0x0d	CR	

##### [2] ACK/NAK

See RF power setting [2].

#### 4.3.15 Multicast address acquisition

After receiving the multicast address acquisition, TX sends the multicast address to the host via Answer.

[1] Get Command

The command format of the multicast address acquisition from the host is shown below.

gmlip\_O\_0000\_00\_NC\_↓

**Table 4-58 Command Format**

No	item	Description	type	value	value description	remarks
1	Command	Command string	string	gmlip		
2	Handshake Select	Sequence execution system	string	O		
3	Model ID/Device ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter			No parameter	
7	End Character	Message end character	binary	0x0d	CR	

[2] Answer

The Answer command format from TX is shown below.

gmlip\_0000\_00\_NC\_239.0.0.100\_↓

**Table 4-59 Answer Command Format**

No	item	Description	type	value	value description	remarks
1	Command	Command string	string	gmlip		
2	Model ID/Device ID	Model ID	string	0000	Not used	
3	Unit ID	Unit ID	string	00	Not used	
4	Continue Select	Divided message system	string	NC	No divided message	
5	Parameter	Parameter				
	Multicast address	Multicast address	string	224.0.0.0 or higher 239.255.255.255	Multicast address	
6	End Character	Message end character	binary	0x0d	CR	

#### 4.3.16 Multicast address notification

The multicast address notification is sent when TX changes the multicast address.

It is not sent when the notification mode is 0 (OFF).

[1] Information

MD\_nmlip\_0000\_00\_NC\_239.0.0.100\_↵

**Table 4-60 Command Format**

No	Item	Description	type	value	value description	remarks
1	Modify	MD	string	MD		
2	Command	Command string	string	nmlip		
3	Model ID/Device ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter				
	Multicast address	Multicast address	string	224.0.0.0 or higher 239.255.255.255	Multicast address	
7	End Character	Message end character	binary	0x0d	CR	

#### 4.3.17 Multicast port number setting

After receiving the multicast port number setting, TX sends the processing results to the host via ACK or NAK.

The parameters are reflected after a reboot. A reboot is required to properly reflect the setting changes.

[1] Set Command

The command format of the multicast port number setting from the host is shown below.

smlpt\_S\_0000\_00\_NC\_17000\_↵

**Table 4-61 Command Format**

No	item	Description	type	value	value description	remarks
1	Command	Command string	string	smlpt		



No	item	Description	type	value	value description	remarks
2	Handshake Select	Sequence execution system	string	S		
3	Model ID/Device ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter				
	Multicast Port No.	Multicast port number	string	1 to 65535	Multicast port number	
7	End Character	Message end character	binary	0x0d	CR	

[2] ACK/NAK

See RF power setting [2].

#### 4.3.18 Multicast port number acquisition

After receiving the multicast port number acquisition, TX sends the multicast port number to the host via Answer.

[1] Get Command

The command format of the multicast port number acquisition from the host is shown below.

gmlpt\_O\_0000\_00\_NC\_↵

**Table 4-62 Command Format**

No	item	Description	type	value	value description	remarks
1	Command	Command string	string	gmlpt		
2	Handshake Select	Sequence execution system	string	O		
3	Model ID/Device ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter			No parameter	
7	End Character	Message end character	binary	0x0d	CR	

[2] Answer

The Answer command format from TX is shown below.

gmlpt\_0000\_00\_NC\_17000\_↓

**Table 4-63 Answer Command Format**

No	item	Description	type	value	value description	remarks
1	Command	Command string	string	gmlpt		
2	Model ID/Device ID	Model ID	string	0000	Not used	
3	Unit ID	Unit ID	string	00	Not used	
4	Continue Select	Divided message system	string	NC	No divided message	
5	Parameter	Parameter				
	Multicast Port No.	Multicast port number	string	1 to 65535	Multicast port number	
6	End Character	Message end character	binary	0x0d	CR	

#### 4.3.19 Multicast port number notification

The multicast port number notification is sent when TX changes the multicast port number.

It is not sent when the notification mode is 0 (OFF).

[1] Information

MD\_nmlpt\_0000\_00\_NC\_17000\_↓

**Table 4-64 Command Format**

No	item	Description	type	value	value description	remarks
1	Modify	MD	string	MD		
2	Command	Command string	string	nmlpt		
3	Model ID/Device ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	

No	item	Description	type	value	value description	remarks
6	Parameter	Parameter				
	Multicast Port No.	Multicast port number	string	1 to 65535	Multicast port number	
7	End Character	Message end character	binary	0x0d	CR	

#### 4.3.20 Syslog setting

After receiving the syslog setting, TX sends the processing results to the host via ACK or NAK.

The parameters are reflected after a reboot. A reboot is required to properly reflect the setting changes.

##### [1] Set Command

The command format of the syslog setting from the host is shown below.

```
sslog_S_0000_00_NC_1_↵
```

**Table 4-65 Command Format**

No	Item	Description	type	value	value description	remarks
1	Command	Command string	string	sslog		
2	Handshake Select	Sequence execution system	string	S		
3	Model ID/Device ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter				
	Syslog	Syslog	string	0	OFF	
				1	ON	
7	End Character	Message end character	binary	0x0d	CR	

##### [2] ACK/NAK

See RF power setting [2].

#### 4.3.21 Syslog acquisition

After receiving the syslog acquisition, TX sends the syslog setting to the host via Answer.

##### [1] Get Command

The command format of the syslog acquisition from the host is shown below.

gslog\_O\_0000\_00\_NC\_↵

**Table 4-66 Command Format**

No	item	Description	type	value	value description	remarks
1	Command	Command string	string	gslog		
2	Handshake Select	Sequence execution system	string	O		
3	Model ID/Device ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter			No parameter	
7	End Character	Message end character	binary	0x0d	CR	

[2] Answer

The Answer command format from TX is shown below.

gslog\_0000\_00\_NC\_1\_↵

**Table 4-67 Answer Command Format**

No	item	Description	type	value	value description	remarks
1	Command	Command string	string	gslog		
2	Model ID/Device ID	Model ID	string	0000	Not used	
3	Unit ID	Unit ID	string	00	Not used	
4	Continue Select	Divided message system	string	NC	No divided message	
5	Parameter	Parameter				
	Syslog	Syslog	string	0	OFF	
				1	ON	
6	End Character	Message end character	binary	0x0d	CR	

#### 4.3.22 Syslog notification

The syslog notification is sent when TX changes the syslog setting.

It is not sent when the notification mode is 0 (OFF).

[1] Information

MD\_ \_nslog\_ \_0000\_ \_00\_ \_NC\_ \_1\_ \_↵

**Table 4-68 Command Format**

No	item	Description	type	value	value description	remarks
1	Modify	MD	string	MD		
2	Command	Command string	string	nslog		
3	Model ID/Device ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter				
	Syslog	Syslog	string	0	OFF	
				1	ON	
7	End Character	Message end character	binary	0x0d	CR	

#### 4.3.23 NTP setting

After receiving the NTP setting, TX sends the processing results to the host via ACK or NAK.

The parameters are reflected after a reboot. A reboot is required to properly reflect the setting changes.

[1] Set Command

The command format of the NTP setting from the host is shown below.

snntp\_ \_S\_ \_0000\_ \_00\_ \_NC\_ \_1\_ \_↵

**Table 4-69 Command Format**

No	Item	Description	type	value	value description	remarks
1	Command	Command string	string	snntp		

No	Item	Description	type	value	value description	remarks
2	Handshake Select	Sequence execution system	string	S		
3	Model ID/Device ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter				
	NTP	NTP setting	string	0	OFF	
				1	ON	
7	End Character	Message end character	binary	0x0d	CR	

[2] ACK/NAK

See RF power setting [2].

#### 4.3.24 NTP acquisition

After receiving the NTP acquisition, TX sends the NTP setting to the host via Answer.

[1] Get Command

The command format of the NTP acquisition from the host is shown below.

gnntp\_O\_0000\_00\_NC\_↓

**Table 4-70 Command Format**

No	Item	Description	type	value	value description	remarks
1	Command	Command string	string	gnntp		
2	Handshake Select	Sequence execution system	string	O		
3	Model ID/Device ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter			No parameter	
7	End Character	Message end character	binary	0x0d	CR	

[2] Answer

The Answer command format from TX is shown below.

gnntp\_0000\_00\_NC\_1\_↓

**Table 4-71 Answer Command Format**

No	Item	Description	type	value	value description	remarks
1	Command	Command string	string	gnntp		
2	Model ID/Device ID	Model ID	string	0000	Not used	
3	Unit ID	Unit ID	string	00	Not used	
4	Continue Select	Divided message system	string	NC	No divided message	
5	Parameter	Parameter				
	NTP	NTP setting	string	0	OFF	
				1	ON	
6	End Character	Message end character	binary	0x0d	CR	

#### 4.3.25 NTP notification

The NTP notification is sent when TX changes the NTP enable mode.

It is not sent when the notification mode is 0 (OFF).

[1] Information

MD\_nnntp\_0000\_00\_NC\_1\_↓

**Table 4-72 Command Format**

No	Item	Description	type	value	value description	remarks
1	Modify	MD	string	MD		
2	Command	Command string	string	nnntp		
3	Model ID/Device ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	

No	Item	Description	type	value	value description	remarks
6	Parameter	Parameter				
	NTP	NTP setting	string	0	OFF	
				1	ON	
7	End Character	Message end character	binary	0x0d	CR	

#### 4.3.26 NTP server address setting

After receiving the NTP server address setting, TX sends the processing results to the host via ACK or NAK.

The parameters are reflected after a reboot. A reboot is required to properly reflect the setting changes.

[1] Set Command

The command format of the NTP server address setting from the host is shown below.

```
ssadr_S_0000_00_NC_192.168.0.40_↵
```

**Table 4-73 Command Format**

No	item	Description	type	value	value description	remarks
1	Command	Command string	string	ssadr		
2	Handshake Select	Sequence execution system	string	S		
3	Model ID/Device ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter				
	NTP Server address	NTP server address	string	0.0.0.0 to 255.255.255.255	NTP server address	
7	End Character	Message end character	binary	0x0d	CR	

[2] ACK/NAK

See RF power setting [2].

#### 4.3.27 NTP server address acquisition

After receiving the NTP server address acquisition, TX sends the NTP server address to the host via Answer.



[1] Get Command

The command format of the NTP server address acquisition from the host is shown below.

gsadr\_O\_0000\_00\_NC\_↓

**Table 4-74 Command Format**

No	item	Description	type	value	value description	remarks
1	Command	Command string	string	gsadr		
2	Handshake Select	Sequence execution system	string	O		
3	Model ID/Device ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter			No parameter	
7	End Character	Message end character	binary	0x0d	CR	

[2] Answer

The Answer command format from TX is shown below.

gsadr\_0000\_00\_NC\_192.168.0.40\_↓

**Table 4-75 Answer Command Format**

No	item	Description	type	value	value description	remarks
1	Command	Command string	string	gsadr		
2	Model ID/Device ID	Model ID	string	0000	Not used	
3	Unit ID	Unit ID	string	00	Not used	
4	Continue Select	Divided message system	string	NC	No divided message	
5	Parameter	Parameter				
	NTP Server address	NTP server address	string	0.0.0.0 to 255.255.255.255	NTP server address	
6	End Character	Message end character	binary	0x0d	CR	

#### 4.3.28 NTP server address notification

The NTP server address notification is sent when TX changes the NTP server address.

It is not sent when the notification mode is 0 (OFF).

[1] Information

MD\_nsadr\_0000\_00\_NC\_192.168.0.40\_↓

**Table 4-76 Command Format**

No	item	Description	type	value	value description	remarks
1	Modify	MD	string	MD		
2	Command	Command string	string	nsadr		
3	Model ID/Device ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter				
	NTP Server address	NTP server address	string	0.0.0.0 to 255.255.255.255	NTP server address	
7	End Character	Message end character	binary	0x0d	CR	

#### 4.3.29 NTP server port number setting

After receiving the NTP server port number setting, TX sends the processing results to the host via ACK or NAK.

The parameters are reflected after a reboot. A reboot is required to properly reflect the setting changes.

[1] Set Command

The command format of the NTP server port number setting from the host is shown below.

sntpp\_S\_0000\_00\_NC\_123\_↓

**Table 4-77 Command Format**

No	item	Description	type	value	value description	remarks
1	Command	Command string	string	sntpp		
2	Handshake Select	Sequence execution system	string	S		
3	Model ID/Device ID	Model ID	string	0000	Not used	

No	item	Description	type	value	value description	remarks
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter				
	NTP Server Port No.	NTP server port number	string	0 to 65535	NTP server port number	
7	End Character	Message end character	binary	0x0d	CR	

[2] ACK/NAK

See RF power setting [2].

#### 4.3.30 NTP server port number acquisition

After receiving the NTP server port number acquisition, TX sends the NTP server port number to the host via Answer.

[1] Get Command

The command format of the NTP server port number acquisition from the host is shown below.

gntpp\_O\_0000\_00\_NC\_↓

**Table 4-78 Command Format**

No	item	Description	type	value	value description	remarks
1	Command	Command string	string	gntpp		
2	Handshake Select	Sequence execution system	string	O		
3	Model ID/Device ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter			No parameter	
7	End Character	Message end character	binary	0x0d	CR	

[2] Answer

The Answer command format from TX is shown below.

gntpp\_0000\_00\_NC\_123\_↓

**Table 4-79 Answer Command Format**

No	item	Description	type	value	value description	remarks
1	Command	Command string	string	gntpp		
2	Model ID/Device ID	Model ID	string	0000	Not used	
3	Unit ID	Unit ID	string	00	Not used	
4	Continue Select	Divided message system	string	NC	No divided message	
5	Parameter	Parameter				
	NTP Server Port No.	NTP server port number	string	0 to 65535	NTP server port number	
6	End Character	Message end character	binary	0x0d	CR	

#### 4.3.31 NTP server port number notification

The NTP server port number notification is sent when TX changes the NTP server port number.

It is not sent when the notification mode is 0 (OFF).

[1] Information

MD\_nntpp\_0000\_00\_NC\_123\_↓

**Table 4-80 Command Format**

No	item	Description	type	value	value description	remarks
1	Modify	MD	string	MD		
2	Command	Command string	string	nntpp		
3	Model ID/Device ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter				
	NTP Server Port No.	NTP server port number	string	0 to 65535	NTP server port number	
7	End Character	Message end character	binary	0x0d	CR	

#### 4.3.32 NTP time zone setting

After receiving the NTP time zone setting, TX sends the processing results to the host via ACK or NAK.

The parameters are reflected after a reboot. A reboot is required to properly reflect the setting changes.

##### [1] Set Command

The command format of the NTP time zone setting from the host is shown below.

```
stmzn_S_0000_00_NC_"+9:00_"↵
```

**Table 4-81 Command Format**

No	item	Description	type	value	value description	remarks
1	Command	Command string	string	stmzn		
2	Handshake Select	Sequence execution system	string	S		
3	Model ID/Device ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter				
	TIME ZONE	Difference from GMT	char	"	Beginning of character string	
			string	-12:00 to +14:00	±HH:MM (in units of 30 minutes)	
				"	End of character string	
7	End Character	Message end character	binary	0x0d	CR	

##### [2] ACK/NAK

See RF power setting [2].

#### 4.3.33 NTP time zone acquisition

After receiving the NTP time zone acquisition, TX sends the NTP time zone to the host via Answer.

##### [1] Get Command

The command format of the NTP time zone acquisition from the host is shown below.

```
gtmzn_O_0000_00_NC_↵
```

**Table 4-82 Command Format**

No	Item	Description	type	value	value description	remarks
1	Command	Command string	string	gtmzn		
2	Handshake Select	Sequence execution system	string	O		
3	Model ID/Device ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter			No parameter	
7	End Character	Message end character	binary	0x0d	CR	

[2] Answer

The Answer command format from TX is shown below.

gtmzn\_0000\_00\_NC\_ "+9:00" \_↵

**Table 4-83 Answer Command Format**

No	item	Description	type	value	value description	remarks
1	Command	Command string	string	gtmzn		
2	Model ID/Device ID	Model ID	string	0000	2.2.2 Not used	
3	Unit ID	Unit ID	string	00	Not used	
4	Continue Select	Divided message system	string	NC	No divided message	
5	Parameter	Difference from GMT				
			char	"	Beginning of character string	
			string	-12:00 to +14:00	±HH:MM (in units of 30 minutes)	
			char	"	End of character string	
6	End Character	Message end character	binary	0x0d	CR	

#### 4.3.34 NTP time zone notification

The NTP time zone notification is sent when TX changes the NTP time zone.

It is not sent when the notification mode is 0 (OFF).

[1] Information

MD\_ntmzn\_0000\_00\_NC\_"+9:00"↵

**Table 4-84 Command Format**

No	item	Description	type	value	value description	remarks
1	Modify	MD	string	MD		
2	Command	Command string	string	ntmzn		
3	Model ID/Device ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter				
			char	"	Beginning of character string	
			string	-12:00 to +14:00	±HH:MM (in units of 30 minutes)	
			char	"	End of character string	
7	End Character	Message end character	binary	0x0d	CR	

#### 4.3.35 Daylight saving time setting

After receiving the daylight saving time setting, TX sends the processing results to the host via ACK or NAK.

The parameters are reflected after a reboot. A reboot is required to properly reflect the setting changes.

[1] Set Command

The command format of the daylight saving time setting from the host is shown below.

sndst\_S\_0000\_00\_NC\_1↵

**Table 4-85 Command Format**

No	item	Description	type	value	value description	remarks
1	Command	Command string	string	sndst		
2	Handshake Select	Sequence execution system	string	S		
3	Model ID/Device ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message	string	NC	No divided message	

No	item	Description	type	value	value description	remarks
		system				
6	Parameter	Parameter				
	Daylight-Savings Time	Daylight saving time mode	string	0	OFF	
				1	ON	
7	End Character	Message end character	binary	0x0d	CR	

[2] ACK/NAK

See RF power setting [2].

#### 4.3.36 Daylight saving time acquisition

After receiving the daylight saving time acquisition, TX sends the daylight saving time mode to the host via Answer.

[1] Get Command

The command format of the daylight saving time acquisition from the host is shown below.

gndst\_O\_0000\_00\_NC\_↓

**Table 4-86 Command Format**

No	item	Description	type	value	value description	remarks
1	Command	Command string	string	gndst		
2	Handshake Select	Sequence execution system	string	O		
3	Model ID/Device ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter			No parameter	
7	End Character	Message end character	binary	0x0d	CR	

[2] Answer

The Answer command format from TX is shown below.

gndst\_0000\_00\_NC\_1\_↓



**Table 4-87 Answer Command Format**

No	item	Description	type	value	value description	remarks
1	Command	Command string	string	gndst		
2	Model ID/Device ID	Model ID	string	0000	Not used	
3	Unit ID	Unit ID	string	00	Not used	
4	Continue Select	Divided message system	string	NC	No divided message	
5	Parameter	Parameter				
	Daylight-Savings Time	Daylight saving time mode	string	0	OFF	
				1	ON	
6	End Character	Message end character	binary	0x0d	CR	

#### 4.3.37 Daylight saving time notification

The daylight saving time notification is sent when TX changes the daylight saving time mode.

It is not sent when the notification mode is 0 (OFF).

[1] Information

MD\_nndst\_0000\_00\_NC\_1\_↓

**Table 4-88 Command Format**

No	item	Description	type	value	value description	remarks
1	Modify	MD	string	MD		
2	Command	Command string	string	nndst		
3	Model ID/Device ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter				
	Daylight-Savings Time	Daylight saving time mode	string	0	OFF	
				1	ON	
7	End Character	Message end character	binary	0x0d	CR	

#### 4.3.38 Daylight saving time start/end time setting

After receiving the daylight saving time start/end time setting, TX sends the processing results to the host via ACK or NAK.

The parameters are reflected after a reboot. A reboot is required to properly reflect the setting changes.

##### [1] Set Command

The command format of the daylight saving time start/end time setting from the host is shown below.

```
sdstt_S_0000_00_NC_03270200,10300200_↵
```

**Table 4-89 Command Format**

No	item	Description	type	Value	value description	remarks
1	Command	Command string	string	sdstt		
2	Handshake Select	Sequence execution system	string	S		
3	Model ID/Device ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter				
	DST Start Date	Start date of daylight saving time	string	01010000 to 12312300	MMDDHHmm (in units of 30 minutes)	
	DST End Date	End date of daylight saving time	string	01010000 to 12312300	MMDDHHmm (in units of 30 minutes)	
7	End Character	Message end character	binary	0x0d	CR	

##### [2] ACK/NAK

See RF power setting [2].

#### 4.3.39 Daylight saving time start/end time acquisition

After receiving the daylight saving time start/end time acquisition, TX sends the daylight saving time start/end time to the host via Answer.

##### [1] Get Command

The command format of the daylight saving time start/end time acquisition from the host is shown below.

```
gdstt_O_0000_00_NC_↵
```

**Table 4-90 Command Format**

No	item	Description	type	value	value description	remarks
1	Command	Command string	string	gdstt		
2	Handshake Select	Sequence execution system	string	O		
3	Model ID/Device ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter			No parameter	
7	End Character	Message end character	Binary	0x0d	CR	

[2] Answer

The Answer command format from TX is shown below.

gdstt\_0000\_00\_NC\_03270200,10300200\_↵

**Table 4-91 Answer Command Format**

No	item	Description	type	value	value description	remarks
1	Command	Command string	string	gdstt		
2	Model ID/Device ID	Model ID	string	0000	Not used	
3	Unit ID	Unit ID	string	00	Not used	
4	Continue Select	Divided message system	string	NC	No divided message	
5	Parameter	Parameter				
	DST Start Date	Start date of daylight saving time	string	01010000 to 12312300	MMDDHHmm (in units of 30 minutes)	
	DST End Date	End date of daylight saving time	string	01010000 to 12312300	MMDDHHmm (in units of 30 minutes)	
6	End Character	Message end character	binary	0x0d	CR	

#### 4.3.40 Daylight saving time start/end time notification

The daylight saving time start/end time notification is sent when TX changes the daylight saving time start/end time.

It is not sent when the notification mode is 0 (OFF).

[1] Information

MD\_ndstt\_0000\_00\_NC\_03270200,10300200\_↵

**Table 4-92 Command Format**

No	item	Description	type	value	value description	remarks
1	Modify	MD	string	MD		
2	Command	Command string	string	ndstt		
3	Model ID/Device ID	Model ID	string	0000	See 2.2.2.	
4	Unit ID	Unit ID	string	00	See 2.2.2.	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter				
	DST Start Date	Start date of daylight saving time	string	01010000 to 12312300	MMDDHHmm (in units of 30 minutes)	
	DST End Date	End date of daylight saving time	string	01010000 to 12312300	MMDDHHmm (in units of 30 minutes)	
7	End Character	Message end character	binary	0x0d	CR	

#### 4.4 Audio

##### 4.4.1 Audio input level (sensitivity) setting

After receiving the audio input level setting, TX sends the processing results to the host via ACK or NAK.

##### [1] Set Command

The command format of the audio input level setting from the host is shown below.

sgain\_S\_0000\_00\_NC\_1\_↵

**Table 4-93 Command Format**

No	Item	Description	type	value	value description	remarks
1	Command	Command string	string	sgain		
2	HandShake Select	Sequence execution system	string	S		
3	Model ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter				
	Sensitivity	Audio input level	string	0	-9dB	

No	Item	Description	type	value	value description	remarks
				1	-8dB	
				2	-7dB	
				~		
				9	0dB	
				10	+1dB	
				~		
				28	+19dB	
				29	+20dB	
				30	+21dB	
7	End Character	Message end character	binary	0x0d	CR	

[2] ACK/NAK

See RF power setting [2].

#### 4.4.2 Audio input level acquisition

After receiving the audio input level acquisition, TX sends the audio input level to the host via Answer.

[1] Get Command

The command format of the audio input level acquiring from the host is shown below.

ggain\_O\_0000\_00\_NC\_↵

**Table 4-94 Command Format**

No	item	Description	type	value	value description	remarks
1	Command	Command string	string	ggain		
2	HandShake Select	Sequence execution system	string	O		
3	Model ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter			No parameter	
7	End Character	Message end character	binary	0x0d	CR	

[2] Answer

The Answer command format from TX is shown below.

ggain\_0000\_00\_NC\_1\_↓

**Table 4-95 Answer Command Format**

No	Item	Description	type	value	value description	remarks
1	Command	Command string	string	ggain		
2	Model ID	Model ID	string	0000	Not used	
3	Unit ID	Unit ID	string	00	Not used	
4	Continue Select	Divided message system	string	NC	No divided message	
5	Parameter	Parameter				
	Sensitivity	Audio input level	string	0	-9dB	
				1	-8dB	
				2	-7dB	
				~		
				9	0dB	
				10	+1dB	
				~		
				28	+19dB	
				29	+20dB	
				30	+21dB	
6	End Character	Message end character	binary	0x0d	CR	

#### 4.4.3 Audio input level notification

The audio input level notification is sent when TX changes the audio input level.

It is not sent when the notification mode is 0 (OFF).

[1] Information

MD\_ngain\_0000\_00\_NC\_1\_↓

**Table 4-96 Command Format**

No	Item	Description	type	value	value description	remarks
1	Modify	MD	string	MD		
2	Command	Command string	string	ngain		
3	Model ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter				
	Sensitivity	Audio input level	string	0	-9dB	
				1	-8dB	
				2	-7dB	
				~		
				9	0dB	
				10	+1dB	
				~		
				28	+19dB	
				29	+20dB	
				30	+21dB	
7	End Character	Message end character	binary	0x0d	CR	

## 4.5 Name Setting

### 4.5.1 Channel name setting

After receiving the channel name setting, TX sends the processing results to the host via ACK or NAK.

[1] Set Command

The command format of the channel name setting from the host is shown below.

```
sname_ S_0000_00_NC_ "ABCDEFGH" _ ↵
```

**Table 4-97 Command Format**

No	Item	Description	type	value	value description	remarks
1	Command	Command string	string	sname		
2	HandShake Select	Sequence execution system	string	S		
3	Model ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter				
	Name	Channel name	char	"	Indicates the beginning of a string	
			string	ASCII code	Channel name	1 to 8 characters
			char	"	Indicates the end of a string	
7	End Character	Message end character	binary	0x0d	CR	

[2] ACK/NAK

See RF power setting [2].

#### 4.5.2 Channel name acquisition

After receiving the channel name acquisition, TX sends the channel name to the host via Answer.

[1] Get Command

The command format of the channel name acquisition from the host is shown below.

gname\_O\_0000\_00\_NC\_↓

**Table 4-98 Command Format**

No	item	Description	type	value	value description	remarks
1	Command	Command string	string	gname		
2	HandShake Select	Sequence execution system	string	O		
3	Model ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	



No	item	Description	type	value	value description	remarks
6	Parameter	Parameter			No parameter	
7	End Character	Message end character	binary	0x0d	CR	

[2] Answer

The Answer command format from TX is shown below.

gname\_0000\_00\_NC\_"ABCDEFGH"↵

**Table 4-99 Answer Command Format**

No	Item	Description	type	value	value description	remarks
1	Command	Command string	string	gname		
2	Model ID	Model ID	string	0000	Not used	
3	Unit ID	Unit ID	string	00	Not used	
4	Continue Select	Divided message system	string	NC	No divided message	
5	Parameter	Parameter				
	Name	Channel name	char	"	Indicates the beginning of a string	
			string	ASCII code	Channel name	1 to 8 characters
			char	"	Indicates the end of a string	
6	End Character	Message end character	binary	0x0d	CR	

#### 4.5.3 Channel name notification

The channel name notification is sent when TX changes the channel name.

It is not sent when the notification mode is 0 (OFF).

[1] Information

MD\_nname\_0000\_00\_NC\_"ABCDEFGH"↵

**Table 4-100 Command Format**

No	Item	Description	type	value	value description	remarks
1	Modify	MD	string	MD		
2	Command	Command string	string	nname		
3	Model ID	Model ID	string	0000	Not used	

No	Item	Description	type	value	value description	remarks
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter				
	Name	Channel name	char	"	Indicates the beginning of a string	
			string	ASCII code	Channel name	1 to 8 characters
			char	"	Indicates the end of a string	
7	End Character	Message end character	binary	0x0d	CR	

## 4.6 Frequency Setting

### 4.6.1 Manual transmission frequency setting

After receiving the manual transmission frequency setting, TX sends the processing results to the host via ACK or NAK.

#### [1] Set Command

The command format of the manual transmission frequency setting from the host is shown below.

sfreq\_S\_0000\_00\_NC\_470125000\_↵

**Table 4-101 Command Format**

No	Item	Description	type	value	value description	remarks
1	Command	Command string	string	sfreq		
2	HandShake Select	Sequence execution system	string	S		
3	Model ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter				
	Frequency	Manual transmission frequency	string	nnnnnnnn	Manual transmission frequency	9-digit decimal number (in Hz) See 4.6.1.1 Frequency range.
7	End Character	Message end character	binary	0x0d	CR	

#### 4.6.1.1 Frequency range

Band	Frequency range [MHz]
DF2	470.125 to 607.875
EG2	580.000 to 713.875
DF2J	470.150 to 607.875
EG2J	580.000 to 713.850

[2] ACK/NAK

See RF power setting [2].

#### 4.6.2 Manual transmission frequency acquisition

After receiving the manual transmission frequency acquisition, TX sends the manual transmission frequency to the host via Answer.

[1] Get Command

The command format of the manual transmission frequency acquisition from the host is shown below.

gfreq\_O\_0000\_00\_NC\_↵

**Table 4-102 Command Format**

No	item	Description	type	value	value description	remarks
1	Command	Command string	string	gfreq		
2	HandShake Select	Sequence execution system	string	O		
3	Model ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter			No parameter	
7	End Character	Message end character	binary	0x0d	CR	

[2] Answer

The Answer command format from TX is shown below.

gfreq\_0000\_00\_NC\_470125000\_↓

**Table 4-103 Answer Command Format**

No	Item	Description	type	value	value description	remarks
1	Command	Command string	string	gfreq		
2	Model ID	Model ID	string	0000	Not used	
3	Unit ID	Unit ID	string	00	Not used	
4	Continue Select	Divided message system	string	NC	No divided message	
5	Parameter	Parameter				
	Frequency	Manual transmission frequency	string	nnnnnnnnn	Manual transmission frequency	9-digit decimal number (in Hz) See 4.6.1.1 Frequency range.
6	End Character	Message end character	binary	0x0d	CR	

#### 4.6.3 Manual transmission frequency notification

The manual transmission frequency notification is sent when TX changes the manual transmission frequency.

It is not sent when the notification mode is 0 (OFF).

[1] Information

MD\_nfreq\_0000\_00\_NC\_470125000\_↓

**Table 4-104 Command Format**

No	Item	Description	type	value	value description	Remarks
1	Modify	MD	string	MD		
2	Command	Command string	string	nfreq		
3	Model ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter				
	Frequency	Manual transmission frequency	string	nnnnnnnnn	Manual transmission frequency	9-digit decimal number (in Hz) See 4.6.1.1 Frequency range.
7	End Character	Message end character	binary	0x0d	CR	

#### 4.6.4 Group channel transmission frequency setting

After receiving the group channel transmission frequency setting, TX sends the processing results to the host via ACK or NAK.

For channel numbers that can be set for each group, see the table below.

Group number	Channel number for the DF2 band	Channel number for the EG2 band	Remarks
1	1 to 23	1 to 25	Preset group 1
2	1 to 23	1 to 20	Preset group 2
3	1 to 21	1 to 22	Preset group 3
4	1 to 23	1 to 22	Preset group 4
5	1 to 24	1 to 21	Preset group 5
6	1 to 25	1 to 23	Preset group 6
7	1 to 22	1 to 21	Preset group 7
8	1 to 21	1 to 18	Preset group 8
9	1 to 24	1 to 17	Preset group 9
10	1 to 23	1 to 21	Preset group 10
11	1 to 23	1 to 20	Preset group 11
12	1 to 25	1 to 23	Preset group 12
13	1 to 24	1 to 24	Preset group 13
14	1 to 23	1 to 25	Preset group 14
15	1 to 23	1 to 25	Preset group 15
16	1 to 22	1 to 21	Preset group 16
17	1 to 25	1 to 23	Preset group 17
18	1 to 24	1 to 21	Preset group 18
19	1 to 24	1 to 21	User group 1
20	1 to 24	1 to 21	User group 2
21	1 to 24	1 to 21	User group 3

22	1 to 24	1 to 21	User group 4
23	1 to 24	1 to 21	User group 5
24	1 to 24	1 to 21	User group 6

[1] Set Command

The command format of the group channel transmission frequency setting from the host is shown below.

sgrch\_S\_0000\_00\_NC\_3,10↵

**Table 4-105 Command Format**

No	Item	Description	type	value	value description	remarks
1	Command	Command string	string	sgrch		
2	HandShake Select	Sequence execution system	string	S		
3	Model ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter				
	Group	Group number	string	nn	Group number	
	Channel	Channel number	string	mm	Channel number	
7	End Character	Message end character	binary	0x0d	CR	

[2] ACK/NAK

See RF power setting [2].

#### 4.6.5 Group channel transmission frequency acquisition

After receiving the group channel transmission frequency acquisition, TX sends the group channel transmission frequency to the host via Answer.

[1] Get Command

The command format of the group channel transmission frequency acquisition from the host is shown below.

ggrch\_O\_0000\_00\_NC↵

**Table 4-106 Command Format**

No	item	Description	type	value	value description	remarks
1	Command	Command string	string	ggrch		
2	HandShake Select	Sequence execution system	string	O		
3	Model ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter			No parameter	
7	End Character	Message end character	binary	0x0d	CR	

[2] Answer

The Answer command format from TX is shown below.

ggrch\_0000\_00\_NC\_3,10\_↓

**Table 4-107 Answer Command Format**

No	Item	Description	type	value	value description	remarks
1	Command	Command string	string	ggrch		
2	Model ID	Model ID	string	0000	Not used	
3	Unit ID	Unit ID	string	00	Not used	
4	Continue Select	Divided message system	string	NC	No divided message	
5	Parameter	Parameter				
	Group	Group number	string	nn	Group number	
	Channel	Channel number	string	mm	Channel number	
6	End Character	Message end character	binary	0x0d	CR	

#### 4.6.6 Group channel transmission frequency notification

The group channel transmission frequency notification is sent when TX changes the group channel transmission frequency.

It is not sent when the notification mode is 0 (OFF).

## [1] Information

MD\_ngrch\_0000\_00\_NC\_3,10\_↓

### Table 4-108 Command Format

No	Item	Description	type	value	value description	remarks
1	Modify	MD	string	MD		
2	Command	Command string	string	ngrch		
3	Model ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter				
	Group	Group number	string	nn	Group number	
	Channel	Channel number	string	mm	Channel number	
7	End Character	Message end character	binary	0x0d	CR	

#### 4.6.7 User group channel edit setting

After receiving the user group channel edit setting, TX sends the processing results to the host via ACK or NAK.

There are 6 user groups (U1 to U6), and up to 30 channels can be set for each user group.

[1] Set Command

The command format of the user group transmission frequency setting from the host is shown below.

Example: User group 1. Ch 1: 470.125 MHz, Ch 2: 471.125 MHz, Ch 3: 472.125 MHz, Ch 4 to 28: Free, Ch 29: 581.000 MHz, Ch 30: 582.000 MHz. Set 0 for free channels.

[illegible]

### **Table 4-109 Command Format**

No	Item	Description	type	value	value description	remarks
1	Command	Command string	string	sgcd		
2	HandShake Select	Sequence execution system	string	S		
3	Model ID	Model ID	string	0000	Not used	



No	Item	Description	type	value	value description	remarks
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter				
	User Group	User group number	string	01 to 06	User group number	
	Channel	User channel	string	30	Number of channels	30 (fixed)
	Frequency	Transmission frequency	string	470125000	Ch1=470.125MHz	
				471125000	Ch2=471.125MHz	
				472125000	Ch3=472.125MHz	
				~		
				0	Ch15 = Free Ch	
				~		
				581000000	Ch29=581MHz	
				582000000	Ch30=582MHz	
7	End Character	Message end character	binary	0x0d	CR	

\* For transmission frequency settings, see 4.6.1.1 Frequency range and use 9-digit decimal number (in Hz).

[2] ACK/NAK

See RF power setting [2].

#### 4.6.8 User group channel transmission frequency acquisition

After receiving the user group channel transmission frequency acquisition, TX sends the user group channel transmission frequency to the host via Answer.

[1] Get Command

The command format of the user group channel transmission frequency acquisition from the host is shown below.

ggced\_O\_0000\_00\_NC\_01\_↵

**Table 4-110 Command Format**

No	item	Description	type	value	value description	remarks
1	Command	Command string	string	ggced		
2	HandShake Select	Sequence execution system	string	O		





## 4.7 Others

### 4.7.1 Power status change notification

The power status change notification is sent when the TX power is turned on. It is not sent when the power is turned off.

It is not sent when the notification mode is 0 (OFF).

[1] Information

MD\_nstpw\_0000\_00\_NC\_1\_↓

**Table 4-113 Command Format**

No	Item	Description	type	value	value description	remarks
1	Modify	MD	string	MD		
2	Command	Command string	string	nstpw		
3	Model ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter	string	1		1 (fixed)
7	End Character	Message end character	binary	0x0d	CR	

### 4.7.2 Reboot request

[1] Request Command

The command format of the reboot request from the host is shown below.

rrbot\_S\_0000\_00\_NC\_↓

**Table 4-114 Command Format**

No	item	Description	type	value	value description	remarks
1	Command	Command string	string	rrbot		
2	Handshake Select	Sequence execution system	string	S		
3	Model ID/Device ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter			No parameter	
7	End Character	Message end character	binary	0x0d	CR	

[1] ACK/NAK

See RF power setting [2].

#### 4.7.3 Reboot notification

The reboot notification is sent from TX when it is rebooted.

It is not sent when the notification mode setting is 0 (OFF).

[1] Information

MD\_nrbot\_0000\_00\_NC\_2,1\_↓

**Table 4-115 Command Format**

No	item	Description	type	value	value description	remarks
1	Modify	MD	string	MD		
2	Command	Command string	string	nrbot		
3	Model ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter				
	Operation	Operation	string	1	Local	
			string	2	Remote	
	Reset Reason	Reboot reason	string	1	Reboot	
				2	Reset (factory settings)	
				3	IP settings	
				4	Remote settings	
				5	NTP setting	
				6	Frequency limit settings (service mode)	
				7	FW(MCU)UPDATE	
				8	FW(FPGA)UPDATE	

No	item	Description	type	value	value description	remarks
7	End Character	Message end character	binary	0x0d	CR	

#### 4.7.4 Display flip and flash request

After receiving the flip and flash request, TX sends the processing result to the host via ACK or NAK.

##### [1] Request Command

The command format of the preset resume request from the host is shown below.

rdflp\_S\_0000\_00\_NC\_1,1\_↵

**Table 4-116 Command Format**

No	item	Description	type	value	value description	remarks
1	Modify	MD	string	MD		
2	Command	Command string	string	rdflp		
3	Model ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter				
	Target Ch	Target Ch	string	1	1 (fixed)	
	Operation	Operation	string	0	Stop	
			string	1	Start	After sending ACK, it repeats flipping for 10 seconds at one second intervals.
7	End Character	Message end character	binary	0x0d	CR	

##### [2] ACK/NAK

See RF power setting [2].

#### 4.7.5 Level notification interval setting change request

After receiving the level notification interval setting change request, TX sends the processing results to the host via ACK or NAK.

##### [1] Set Command

The command format of the level notification interval change request from the host is shown below.

sitlv\_S\_0000\_00\_NC\_100\_↓

**Table 4-117 Command Format**

No	Item	Description	type	value	value description	remarks
1	Command	Command string	string	sitlv		
2	HandShake Select	Sequence execution system	string	S		
3	Model ID	Model ID	string	0000	Not used	
4	Unit ID	Unit ID	string	00	Not used	
5	Continue Select	Divided message system	string	NC	No divided message	
6	Parameter	Parameter				
	Interval	Notification interval	string	nnn	1 to 60000	100ms/step
7	End Character	Message end character	binary	0x0d	CR	

##### [2] ACK/NAK

See RF power setting [2].

## 5 Appendix

### 5.1 AF Level Table

Value	Data[dBFS]
1	-60
2	-50
3	-45
4	-40
5	-35
6	-32
7	-29
8	-26
9	-23
10	-20
11	-17
12	-14
13	-11
14	-8
15	-5 to -3
16	-3 is reached.



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