

General

JUMA-TRX2 serial protocol in JUMA-TRX2 native way to communicate with another system like JUMA PA100 linear amplifier. JUMA-TRX2 serial command and query protocol is activated from TRX2 232 config page. Set RS232 = JUMATRIX2.

Note 1.

JUMA-TRX2 serial command and query protocol is implemented only in firmware version v1.05 and newer versions.

Note 2.

RS232 serial port baud rate should be set to match with another system. High value of baud rates are recommended, 38400bd an up. this keeps transaction times short.

Description of the protocol

Start and end delimiters. Message always start with question mark (?) or equal sign (=). Message always terminated with CR (carriage return character). ? is query and = is set message. LF is added to the response messages. This makes it lot easier to test the commands with terminal program.

Start	Message	Stop
?	Query Message	CR
=	Set message	CR

First character of the message is the required parameter. Message may be only one character long.

Character	Parameter
F	Frequency
V	VFO #
M	Mode
R	RIT status
A	Audio filter
W	Audio filter width
B	Band, query only
S	S /PWR meter, query only

Frequency [F]

F Query

?	F	CR
---	---	----

TRX2 response (example)

=	F	03699000	LF	CR
---	---	----------	----	----

F Set

=	F	14700000	CR
---	---	----------	----

VFO # [V]

V Query

?	V	CR
---	---	----

TRX2 response (example)

=	V	1	LF	CR
---	---	---	----	----

V Set

=	V	25	CR
---	---	----	----

VFO number is one or two decimal digits. Range: 0 to 25 (A-Z).

Mode [M]

M Query

?	M	CR
---	---	----

TRX2 response (example)

=	M	2	CR	LF
---	---	---	----	----

V Set

=	M	2	CR
---	---	---	----

Number	Mode
0	LSB
1	USB
2	CW
3	Tune

Rit status [R]

R Query

?	R	CR
---	---	----

TRX2 response (example)

=	R	1	LF	CR
---	---	---	----	----

R Set

=	R	0	CR
---	---	---	----

Audio Filter # [A]

A Query

?	A	CR
---	---	----

TRX2 response (example)

=	A	2	CR	LF
---	---	---	----	----

A Set

=	A	1	CR
---	---	---	----

Number	Filter
--------	--------

0	NAR
1	MID
2	WID

Audio filter width[W]

W Query

?	W	CR
---	---	----

TRX2 response (example)

=	W	2500	CR	LF
---	---	------	----	----

W Set

=	W	2300	CR
---	---	------	----

Set selected audio filter width. Limitations are same than tuning from TRX2 controls. Set frequency is truncated to nearest SCAF clock step.

Band query [B]

B Query

?	B	CR
---	---	----

TRX2 response (example)

=	B	2	CR	LF
---	---	---	----	----

Number	Band
0	N/A
1	1.8
2	3.5
3	7
4	10
5	14
6	18
7	21
8	24
9	28

Query only, no Set command for Band information

S / Power meter [S]

S Query

?	S	CR
---	---	----

TRX2 response (example)

=	S	24	CR	LF
---	---	----	----	----

S-meter / Power meter range 0 to 47. Query only. Response is S-meter while RX and PWR meter when TX.

No action characters

For input format flexibility certain characters are defined as no action characters.

.	Period
,	Comma
	Space
	Line feed
	NUL

Following command formats yields same result

=	F	369900		CR
---	---	--------	--	----

=	F	3.699.00		CR
---	---	----------	--	----

=	F	3699,00	LF	CR
---	---	---------	----	----

=	F	NUL 3 699 00		CR
---	---	--------------	--	----

JUMA-PA100 serial command and query protocol
OH2NLT

Version 17.08.2008

Band information [B]

B Query

?	B	CR
---	---	----

TRX2 response (example)

=	B	2	LF	CR
---	---	---	----	----

B Set

=	B	2	CR
---	---	---	----

=	B	2	LF	CR
---	---	---	----	----

Number	Band
0	N/A
1	1.8
2	3.5
3	7
4	10
5	14
6	18
7	21
8	24
9	28