ROTEL®

Rotel Q5
RS232 ASCII Controller Command List

Date	Version	Update Description
10/29/2024	1.00	Original Specification

The Q5 supports an ASCII based RS232 protocol. The RS232 hardware does not support flow control so care needs to be taken when sending and receiving data to avoid packet loss.

All commands sent to the attached Rotel device must have a terminating "!" character.

Example Command: power_on!

Note: *Do not include any spaces in the command, and do not include a carriage return or line feed after the command, only the "!" terminating character.*

Status information from the attached Rotel product will have a terminating "$" character for fixed length options. Variable-length strings (i.e. CD disc/track metadata) will be terminated with a double character '$$' instead. It is up to the sending/receiving control application to properly parse and process the packets.

Connection Settings

Baud Rate	Parity	Valid Data Bits	Stop Bit Value	Handshaking	Data Type
115200	N	8	1	None	String

IP Control Settings

The Q5 will only accept and respond to IP control commands if the product is connected to a local network and has a valid IP address.

Commands will be accepted via TCP port 9596, and the unit will send responses back via the same port. The command and response format is identical to the serial commands.

Communication Protocol

Command and response messages are included on the following pages. Automatic status update information can be enabled/disabled using the "rs232_update_on" and "rs232_update_off" commands.

In automatic mode each time the display changes the new display line(s) will be sent. In manual mode the display updates must be requested each time a refresh of the display information is desired. This primarily applies to Front USB metadata information. Basic status information such as volume, power or source changes will still be provided automatically.

Section 1: Control Command List

Q5 ASCII	Command Description	Unit Response
POWER COMMANDS		
power_on!	Power On	power=on$
power_off!	Power Off	power=standby$
power_toggle!	Power Toggle	power=on/standby$
SOURCE SELECTION COMMANDS		
cd!	Source CD	source=cd$
coax!	Source Coax	source=coax$
opt!	Source Optical	source=opt$
pcusb!	Source PC-USB	source=pcusb$
CD TRANSPORT COMMANDS		
play!	Play	status=play$
stop!	Stop	status=pause/stop$
pause!	Pause Toggle	status=pause/play$
trkf!	Track Forward	track=(#)#$
trkb!	Track Backward	track=(#)#$
ff!	Fast Forward	n/a
fb!	Fast Backward	n/a
rnd!	Random Play Mode Toggle	md=on/off$
rpt!	Repeat Play Mode Toggle	rpt=track/disc/off$
time!	Toggle CD Time Display	time=#:##:##$$
1!	Number Key 1	track=(#)#$
2!	Number Key 2	track=(#)#$
3!	Number Key 3	track=(#)#$
4!	Number Key 4	track=(#)#$
5!	Number Key 5	track=(#)#$
6!	Number Key 6	track=(#)#$
7!	Number Key 7	track=(#)#$
8!	Number Key 8	track=(#)#$
9!	Number Key 9	track=(#)#$
0!	Number Key 0	n/a
PC-USB TRANSPORT COMMANDS		
play!	Play Source	n/a
stop!	Stop Source	n/a
pause!	Pause Source	n/a
trkf!	Track Forward	n/a
trkb!	Track Backward	n/a

Q5 ASCII	Command Description	Unit Response
OTHER COMMANDS		
dimmer!	Toggle display dimmer	dimmer=#$
dimmer_0!	Set display to brightest setting	dimmer=0$
dimmer_1!	Set display to dimmer level 1	dimmer=1$
dimmer_2!	Set display to dimmer level 2	dimmer=2$
dimmer_3!	Set display to dimmer level 3	dimmer=3$
dimmer_4!	Set display to dimmest setting	dimmer=4$
RS232 FEEDBACK COMMANDS		
rs232_update_on!	Set RS232 Update to Auto (On)	update_mode=auto$
rs232_update_off!	Set RS232 Update to Manual (Off)	update_mode=manual$

Section 2: Feedback Request Command List

Command:	power?
Description:	Request current power status
Return String(s):	power=on$ / power=standby$
Return Description:	Current power status
Example:	power=on$

Command:	source?
Description:	Request current source
Return String(s):	source=cd$ / source=coax$ / source=opt$ / source=pcusb$
Return Description:	Current source
Example:	source=coax$

Command:	status?
Description:	Request CD play status
Return String(s):	status=play$ / status=stop$ / status=pause$
Return Description:	CD Play Status
Example:	status=pause$

Command:	track?
Description:	Request current CD track number
Return String(s):	track=(#)#$
Return Description:	Current CD track
Example:	track=2$ / track=10$

Command:	track_name?
Description:	Request current CD track name
Return String(s):	track_name=text$$
Return Description:	Current CD track name. (UTF-8 text encoding)
Example:	track_name=Sample Track Name$$

Command:	rnd?
Description:	Request current random play mode
Return String(s):	md=on$ / md=off$
Return Description:	Random play mode
Example:	rnd=on$

Command:	rpt?
Description:	Request current repeat play mode
Return String(s):	rpt=track$ / rpt=disc$ / rpt=off$
Return Description:	Repeat play mode
Example:	rpt=track$

Command:	time?
Description:	Request current CD track time
Return String(s):	time=#:##:##$$
Return Description:	Text string of time, depending on which time display mode has been set (track time elapsed or remaining, disc time elapsed or remaining)
Example:	time=0:02:45$$ / time=1:10:32$$

Command:	disc_name?
Description:	Request current CD name
Return String(s):	cd_name=text$$
Return Description:	Current CD name. (UTF-8 text encoding)
Example:	cd_name=Sample CD Name$$

Command:	disc_type?
Description:	Request type of loaded CD
Return String(s):	disc_type=None$$ / disc_type=CD-DA$$
Return Description:	Disc type
Example:	disc_type=CD-DA$$

Command:	freq?
Description:	Request current frequency for digital source input
Return String(s):	freq=none$ / freq=44.1k$ / freq=48k$ / freq=88.2k$ / freq=96k$ / freq=176.4k$ / freq=192k$ / freq=352.8k$ / freq=384$ / freq=2.8m$ / freq=5.6m$ / freq=11.2m$
Return Description:	Current frequency for digital source input
Example:	freq=96k$

Command:	dimmer?
Description:	Request current front display dimmer level
Return String(s):	dimmer=0$ / dimmer=1$ / dimmer=2$ / dimmer=3$ / dimmer=4$
Return Description:	Current front display dimmer level
Example:	dimmer=3$

Command:	version?
Description:	Request the current software version
Return String:	version=#.##$
Return Description:	Rotel current software version
Example:	version=1.00.03$

Command:	ip?
Description:	Request the IP address of the product
Return String:	ip=###.###.###.###$
Return Description:	Current IP address
Example:	ip =192.168.100.8$

Command:	mac?
Description:	Request the MAC address of the product
Return String:	mac=############$
Return Description:	MAC address (uppercase characters)
Example:	mac=0CEFAF90125E$

Command:	model?
Description:	Request the model number
Return String:	model=text$
Return Description:	Rotel model number
Example:	model=michi q5$

Command:	discover?
Description:	Request the device to identify itself on the network
Return String:	discover=ip=###.###.###.### port=#### mac=############$
Return Description:	Device's IP address, port number and MAC address
Example:	discover=ip=192.168.100.25 port=9596 mac=0CEFAF90125E$