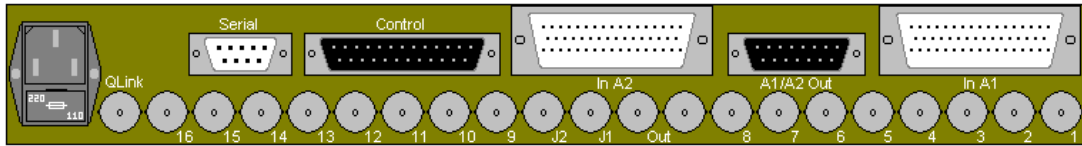


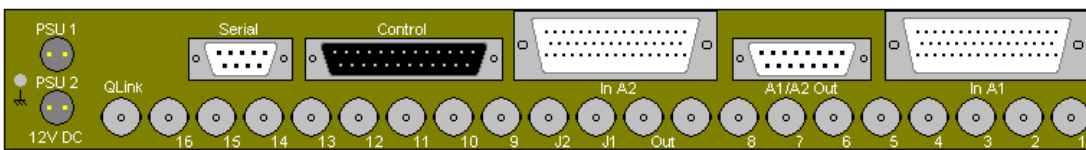
Application Note AN-0015

Q1602 Small Router System

The Q1602 routers offer a low cost small router solution. The system consists of the metal box with an internal 115/230v power supply (Q1602) or external power brick (Q1602E) and a base router module.

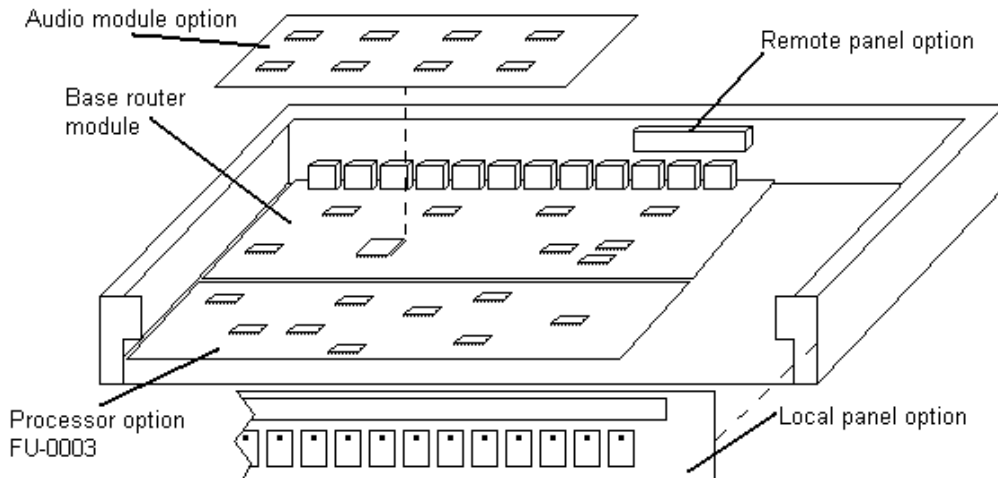


Q1602 Internal PSU Version



Q1602E External PSU Version

The base module is 16x2 and is not upgradeable. Base modules are currently available as Serial Video (SV), High Definition video (HD), and Analogue Video (AV). The AV module can also be used for unbalanced/BNC digital audio (DA).



To the base module can be added a stereo analogue audio module also available as 8x2, 16x1, or 16x2 or a dual AES digital audio module, always as 16x2.

The base module supports a front panel mounted on the box, or a remote version that connects on a 25-way cable. For more sophisticated control applications an internal processor module (FU-0003) can be added that enables the Q-Link and serial (RS232/422) connector. With the FU-0003 fitted any standard Quartz panel can be added to the Q-Link.

Routers can also be cascaded for systems requiring a large number of inputs, up to 240x1.

The internal PSU version (Q1602) supports a single, non-redundant, PSU. The external power brick version (Q1602E) supports a single and dual or redundant PSU.

CP-1601A-LP Router Local Panel

This is a 17-button panel that fits on the front of the router to provide the simplest possible control. It can only be used when the processor option FU-0001 is NOT fitted.



The panel can be configured in several different ways.

- 16x1, Lock/Enable
- 16x2, Destination Toggle
- 8x2**, Lock/Enable
- 16x1 with Joystick operation
- Dual 8x1

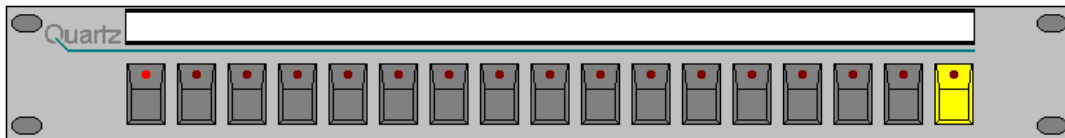
CP-1600A-LP Router Local Panel

This is a 22-button panel that fits on the front of the router to provide simple control. It can only be used when the processor option FU-0001 is fitted.



CP-1601A-P Remote Panel

This is a 16-button panel that fits into any standard 17" rack to provide simple control via a 25 way cable to the router 'Control' connector.

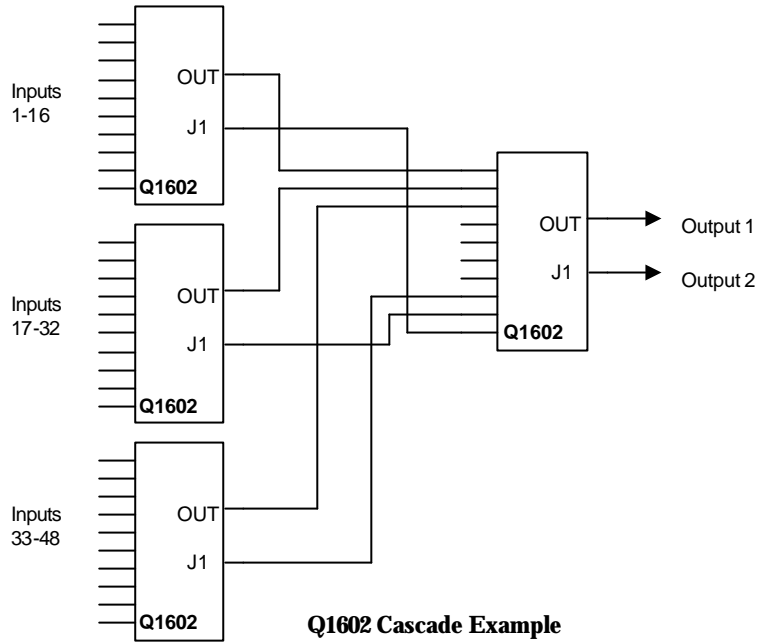


The panel can be configured in several different ways.

- 16x1, Lock/Enable
- 16x2, Destination Toggle
- 8x2**, Lock/Enable
- 16x1 with Joystick operation
- Dual 8x1

Cascaded Routers

To build large monitoring type systems, several Q1601 routers can be joined together to form a router of up to 128x2.



The following table gives the maximum sizes that can be achieved by cascading a number of Q1602 routers together.

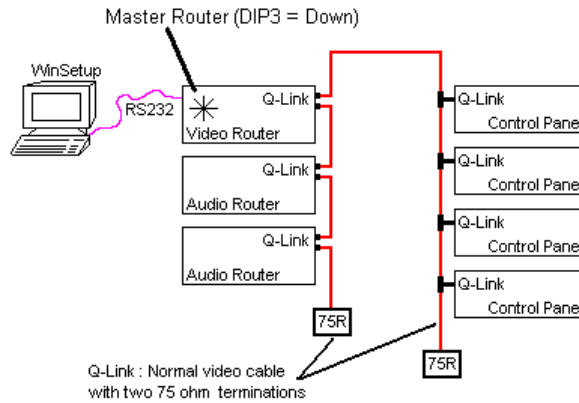
Number of Routers	'n'x1 max.	'n'x2 max.
2	31x1	30x2
3	46x1	44x2
4	61x1	58x2
5	76x1	72x2
6	91x1	86x2
7	106x1	100x2
8	121x1	114x2
9	136x1	128x2
10	151x1	-
11	166x1	-
12	181x1	-
13	196x1	-
14	211x1	-
15	226x1	-
16	241x1	-
17	256x1	-

Advanced Control System

Adding the FU-0003 processor to a Q1602 router enables more sophisticated control options, including the Q-Link and RS232/422 serial control.

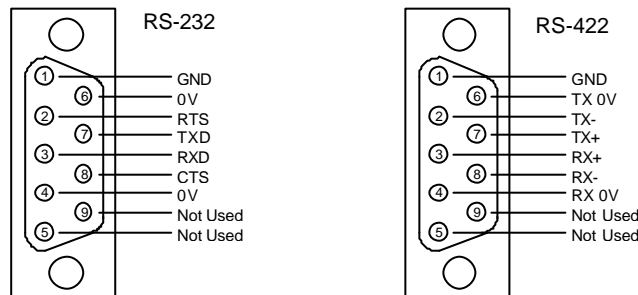
Q-Link

Q-link is used to interconnect the panels and router frames using a single coaxial cable, making it very easy to install. A total run of over 500 metres of standard video cable can be used between panels and the frames.



Serial

The FU-0003 controller has a jumper link to select either RS232 or RS422. Set the link to 232 or 422 as appropriate. The connector pin-out is shown below.



Audio Connectors

The audio sub-module for analog audio or AES balanced audio uses D50 and D15 connectors with the following pin-out.

