

THE JACKDAW, THE DEVIL'S HIGHWAY  
MORTIMER WEST END, READING, BERKS RG7 2AD

## The TE2608 RGsB to VGA CONVERTER



The TE2608 allows computer graphics to be distributed over triple (RGB) coax networks with VGA, SVGA or XGA resolution. Typical applications are:

- Using legacy RGsB (sync on green) infrastructure with modern monitors
- Saving cable cost over RGBHV systems on long distance video drivers.

### USING the TE2608

The rear panel has three BNC sockets for the Red, Green (+sync) and Blue inputs. The front panel has a 15pin Hi density "D" socket that outputs RGB and HV (Horizontal and Vertical sync) signals in the standard PC video card format. The monitor plugs in here.

The unit is powered from 12Vdc at 100mA; a "plug-top" Power Supply is included. Either front panel 2.1mm low power inlet may be used; the second one allows another unit or units to be powered from the same Power Supply. The centre pin is positive. The green LED illuminates when power is present.

Switches 1 and 2 of the front panel piano-key switch control the polarity of the H and V signals. Some monitors may need the "right" polarity; the RGsB standard only allows negative going syncs. Switching the switch "on" (down) gives positive going syncs.

## TECHNICAL DATA.

Input Impedance:	The Gs input is terminated in 75Ω. The R and B inputs are fed through passive 3 section Bessel Linear phase filters to the R and B output pins on the VGA connector. The filters are designed to simulate the frequency response and delays of the green section when operating at 75Ω.
Gs Input Level:	RS170; 0.7Vpk video with 0.3V combined negative going syncs.
G Output Impedance:	75R
G output Level:	RS170; 0.7Vpk video into 75R.
H and V Sync Outputs:	TTL and 5V CMOS compatible; RS170 video compatible when terminated in 75R. Short Circuit proof. Not proof against external applied voltages. <i>NOTE: There is some degree of sync processing within the unit; it will reject double pulses or spurious pulses near the main pulse; it will cause short pulses to have a minimum 0.8μs duration. These measures are sufficient to “clean up” problems that may be caused by simple sync combiners such as the TE2702. The TE2608 cannot replace missing pulses, so if the monitor needs continuous H pulses, the sync on green signals <b>must</b> have H sync pulses present during the V sync period. (TE2702 has continuous H sync pulses).</i>
H Sync Range:	15kHz – 120kHz
V Sync Range:	50Hz – 120Hz
Video Bandwidth:	Approx 100MHz.  <i>NOTE: The TE2608 will work with SXGA signals but the bandwidth limitation will cause parts of the image to be degraded.</i>

---

## OPTIONS:

OPTION 1:	RGBHV outputs on 5 BNCs as well as the 15w Hi density “D” connector (only one monitor can be connected at any one time).
OPTION 2:	As Option 1 but two monitors can be connected simultaneously.

---