

## VGS2 Graphics Splitter



Run two screens from  
a single computer

With High Quality cables  
the extra screen can be  
65 Metres or more away!

Impressive presentations

Effective teaching tool

High-res, Crystal clear

The Quest AV model VGS2 Graphics Splitter is small, efficient, inexpensive, very easy to use and works equally well with VGA, SVGA, XGA, SXGA, etc.

Because the VGS2 runs from a simple 12Vdc supply, it can readily be used in portable applications or in remote locations.

With the optional remote switch assembly CST1 (not included) you can make the boosted output go completely Black while you load files or attract your audience's attention

without affecting your monitor in any way and without sending any unintended pictures to your audience - Very professional!

We can supply high quality VGA cables in lengths from 1.5 to 30 metres, as well as extender cables.

The VGS2 comes ready to use! Supplied with a high quality cable to connect to your PC or laptop and an Australian-approved 12V power supply.

There are no adjustments, dummy

plugs or confusing dials to configure, just plug it in and use it right away.

You can't go wrong - the connectors are clearly labelled to prevent confusion. No damage can be done to the VGS2 or your PC and monitors, projectors, media switches, etc. if incorrectly connected as all inputs and outputs are protected.

The VGS2 carries a full 12 month parts and labour warranty. Freight is not included.

### Specifications

#### INPUT

Connector: 15 pin high-density female D-sub  
HQ Cable: 15pin high-density male to male, 75 ohm RGB coaxes, RFI ferrites  
RGB signals: Analogue video, 0.7 - 1.0Vp-p nominal, 75 ohm terminated  
H & V Sync: TTL level, horizontal and vertical, 2K2 pull-up to +5V

#### MONITOR OUTPUT

Connector: 15 pin high-density female D-sub  
RGB Gain: Buffered, unity  $\pm 10\%$ , fixed gain, optimised to feed 75 ohm inputs H & V Sync: Buffered, TTL compatible, polarity same as input, protected against short-circuit RGB Bandwidth: >250MHz

#### BOOSTED OUTPUT

Connector: 15 pin high-density female D-sub  
RGB Gain: Buffered 75 ohm source, factory set to unity, up to +6dB available (internal adjustments), H & V Sync: Buffered, TTL compatible, polarity same as input, protected against short-circuit RGB Bandwidth: -3dB @ 400MHz, with standard 0.7Vp-p signals into 75 ohm loads.

#### GENERAL

Special features: Boosted output can be blanked, 12Vdc operation, reverse polarity & short-circuit protected  
Accessories included: 1 each: 12Vdc 500mA power supply, 1.2mtr male-male HQ input cable  
Optional Accessory: CST1 Remote control cable for blanking Boosted Output, 5Mtrs  
Output option: Additional boosted output instead of the monitor output  
Power: Nominal 12Vdc @ 100mA (1.2Watts), Min 9Vdc, Max. 30Vdc  
Dimensions WxDxH: 140 x 115(max) x 36mm, VGS2 only, no cables connected.  
Weight: Packed 980gms, VGS2 only 245gms.

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## VGA Cabling

### 1. Cabling

Sadly, the graphics cabling is often the "poor relative" in an AV installation. It cannot be overstated that the type of cable used and the way it is configured and terminated has a major influence over the visual quality of high resolution graphics. Graphics cables have to be manufactured and terminated correctly to avoid visible aberrations. Extraneous grounds, poor soldering and incorrect pinouts are the most common problems. Cables can also be made on-site by suitably skilled installers provided the specifications, tools, techniques and technical expertise are available. We have technical drawings and "how to" sheets available for our customers upon request.

### 2. Types of cable

The correct type of cable is essential. Data cable (several insulated wires with an overall shield), audio cable, ethernet cable and ribbon cable are not directly suitable. Such cable causes serious image degradation e.g. smearing, ghosting, colour-shift, instability, etc. Unstable sync prevents monitors and projectors from identifying the signal properly and may cause flashing, rolling or just no picture to appear. Additionally, ribbon cable and ethernet cable are usually unshielded, allowing radio frequency interference (aka RFI or EMI) to be radiated - and that is an offence in these days of EMC control. Inexpensive accessory cables are often made from inappropriate, cheap cable. High Quality VGA cables contain three separate, shielded, low-loss, 75 ohm video co-ax cores for the Red, Green and Blue signals, isolated twisted pairs for the synchronisation and communications signals, plus electrostatic and electromagnetic overall shields. RG59 or RG6 75ohm low-loss VIDEO co-ax in conjunction with our DB95 breakout adaptors can be used for longer runs, but use the exact same type for all signals and keep them all the same length. DO NOT use RF, Antenna or Satellite cable!

### 3. Cable lengths

Basically, keep cables as short as possible. The cable length is determined not only by physical requirements, but also by the type of cable and the highest graphics resolution to be presented. For a given amount of loss:- the higher the resolution, the shorter the cable. As a rough guide, assuming barely discernable degradation and using High Quality VGA cables... 640x480 35-40 Mtrs, 800x600 30-35Mtrs, 1024x768 25-30Mtrs, 1280x960 20-25Mtrs, 1600x1200 15-20Mtrs. Lengths can be three or four times longer if a quality RG59 or RG6 video co-ax and our DB95 adaptors are used.

### 4. Computer capabilities

Modern PCs, especially portables, may not be able to drive long cables directly. This is due to lower internal supply voltages in modern equipment. It is not possible for the circuitry to provide sufficient power to drive properly terminated load impedances. Instead, a low power current source is used, which is fine for driving short cables, but not suitable for driving long cables which must have the correct impedance at both the source and load ends. Our AWP1, VGS2, and GFX3 graphics equipments solve this by correctly loading and buffering all the video and synchronisation signals and have up to 6dB adjustable internal gain available for the longest practical cables. These models also provide a barrier for protection of the precious Computers, Monitors and Projectors connected to them.

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