

SEQ 100 15HD

SKEW EQUALIZER

- Compensates skew for:
 - RGBHV, RGBS, & RGsB
 - Component video
 - S-video
- Compatible with all Extron Twisted Pair products
- Independent skew compensation adjustments for each color
- Versatile mounting options
- LED power indicator
- External international power supply included



SEQ 100 15HD

The Extron SEQ 100 15HD Skew Equalizer compensates for color separation problems commonly encountered when transmitting high resolution video long distances over data grade Category 5, 5e, or 6 twisted pair cable. Independent time delay adjustments for red, green, and blue color signals enable users to dial in precise color alignments for sharper clearer images.



Extron® Electronics

www.extron.com

DESCRIPTION

The Extron **SEQ 100 15HD** Skew Equalizer enables adjustment of individual red, green, and blue color signals to significantly improve image quality when using data grade CAT 5, 5e, or 6 twisted pair cable. The SEQ 100 15HD uses individual female 15-pin HD connectors for input and output and is ideal for new installations or to upgrade existing twisted pair installations.

When twisted pair cable is used for video transmission, the red, green, and blue signals are each sent through a separate pair of wires. Each pair of wires in typical data grade twisted pair data cable has a different twist ratio, and therefore each pair is a different length. As a result, each color signal arrives at the receiving end at a slightly different time, causing a distortion in the image displayed as visible color separation. The delay that causes this distortion is called skew.

The SEQ 100 15HD uses a time delay circuit on each color input that can be independently adjusted from 0 to 39 nanoseconds, using three rotary time delay switches on the front panel, in order to compensate for the different lengths of each pair of wires. The time delay circuit employs an advanced design that enhances skew compensation while maintaining signal integrity.

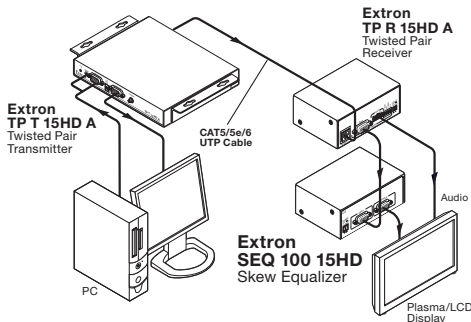
The SEQ 100 15HD can be selectively added to only those signal runs that require compensation.

The SEQ 100 15HD is part of the Extron VersaTools® family of economical, compact products designed for easy integration into new and existing A/V environments. Housed in a 1U, quarter rack width metal enclosure, it fits just about anywhere: in racks, under tables and desktops, or next to a projector. A 12VDC, 1A external international power supply is included.

FEATURES

- **Compensates skew for RGBHV, RGBS, and RGsB signals** – Independent rotary switches allow the arrival of each color signal to be delayed to compensate for the different wire pair lengths
- **Compatible with all Extron twisted pair products** – Can be selectively added to only those signal runs that require compensation
- **Individual red, green, and blue skew compensation controls** – Significantly improves image quality when using data grade CAT 5, 5e, or 6 twisted pair cable
- **Compact 1U, quarter rack width metal enclosure** – For versatile mounting options - Rack, under-desk, and projector mountable
- **LED power indicator on front panel** – For easy troubleshooting
- **External international power supply included, part # 70-055-01**

APPLICATION DIAGRAM



SPECIFICATIONS

VIDEO		
Gain	Unity	
VIDEO INPUT		
Number/signal type.....	1 RGBHV, RGBS, RGsB, component video, S-video	
Connectors	1 female 15-pin HD	
Nominal level	1 Vp-p for Y of component video and S-video, and for composite video 0.7 Vp-p for RGB and for R-Y and B-Y of component video 0.3 Vp-p for C of S-video	
Minimum/maximum levels	Analog: 0.3 V to 1.45 Vp-p with no offset at unity gain	
Impedance	75 ohms	
Horizontal frequency.....	15 kHz to 130 kHz	
Vertical frequency	30 Hz to 150 Hz	
VIDEO OUTPUT		
Number/signal type.....	1 RGBHV, RGBS, RGsB, component video, S-video	
Connectors	1 female 15-pin HD	
Nominal level	1 Vp-p for Y of component video and S-video, and for composite video 0.7 Vp-p for RGB and for R-Y and B-Y of component video 0.3 Vp-p for C of S-video	
Minimum/maximum levels	0.3 V to 1.45 Vp-p (follows input)	
Impedance	75 ohms	
SYNC (PASS-THROUGH)		
Input type	RGBHV, RGBS, RGsB	
Output type.....	RGBHV, RGBS, RGsB (follows input)	
Input/output level	TTL: 5.0 Vp-p, unterminated	
Input impedance	75 ohms	
Output impedance	75 ohms	
Max input voltage	5.0 V p-p	
Polarity	Positive or negative (follows input)	
GENERAL		
External power supply	100 VAC to 240 VAC, 50/60 Hz, external, universal; to 12 VDC, 1 A, regulated	
Cooling.....	Convection, unvented	
Power input requirements.....	12 VDC, 0.2 A	
Rack mount	Yes, with optional 1U, 9.5" deep rack shelf, part #60-190-01 (RSU 129) or 60-604-01 (RSB 129); VersaTools® rack shelf, part #60-190-20 (RSF 123) or 60-604-20 (RSB 123); or VersaTools® Back of the Rack Mounting Kit, part #70-367-01 (MBB 100) Also furniture mountable with an optional Mini Under-Desk Mounting Kit, part #70-212-01 (MBU 123); or projector mountable with an optional Mini Projector Mounting Kit, part #70-217-01 (PMK 100)	
Enclosure type	Metal	
Enclosure dimensions	1.7" H x 4.3" W x 3.0" D (1U high, quarter rack wide) 4.3 cm H x 10.9 cm W x 7.6 cm D (Depth excludes connectors.)	
Product weight.....	0.6 lbs (0.3 kg)	
Shipping weight	2 lbs (1 kg)	
Listings	UL, CUL	
Compliances.....	CE, FCC Class A, VCCI, AS/NZS, ICES	
MTBF.....	30,000 hours	
Warranty	3 years parts and labor	
NOTE: All nominal levels are at ±10%		
Model	Version Description	Part Number
SEQ 100 15HD	Skew Equalizer - 15HD.....	60-676-01
Optional Accessories		
Mini Projector Mounting Kit		70-217-01
Mini Under-Desk Mounting Kit		70-212-01
VersaTools Rack Shelf Kit		60-190-20
Basic Rack Shelf Kit		60-604-20
P/S 123 Power Supply.....		60-814-01

Specifications are subject to change without notice.



Extron Electronics, USA
1230 South Lewis Street
Anaheim, CA 92805
800.633.9876 714.491.1500
FAX 714.491.1517

Extron Electronics, Europe
Beeldschermweg 6C, 3821 AH Amersfoort
The Netherlands
+800.3987.6673 +31.33.453.4040
FAX +31.33.453.4050

Extron Electronics, Asia
135 Joo Seng Rd. #04-01
PM Industrial Bldg.
Singapore 368363
+65.6383.4400 FAX +65.6383.4664

Extron Electronics, Japan
Kyodo Building, 16 Ichibancho
Chiyoda-ku, Tokyo 102-0082
Japan
+81.3.3511.7655 FAX +81.3.3511.7656