

SCD 10 : SCD 10

The SCD 10 Subcarrier Demodulator is designed for use in conjunction with the SCG 10 Subcarrier Generator to provide a high quality subcarrier channel on a microwave STL link. The SCD 10 has several options available, allowing it to perform a wide range of functions. Audio processing options include user selectable de-emphasis of 0, 75, 150 or 225 microseconds. The SCD 10 also features an illuminated panel meter to aid in adjusting subcarrier input levels and audio out.



GENERAL SPECIFICATIONS

Subcarrier Frequency:

39 kHz, 41 kHz, 67 kHz, 92 kHz, 110 kHz, 152 kHz, 185 kHz

Subcarrier Input:

0.1 to 1 volt RMS. 10K ohms impedance, BNC connector. Panel adjustment.

Demodulator Distortion:

Phase-locked FM detector has less than 0.6% THD.

Audio Processing:

De-emphasis: 0, 75, 150, 225 microseconds, user selectable.

Low-pass Filters: Audio cut-off frequencies of 3 kHz, 5 kHz or 7.5 kHz are specified with original equipment order. The lowest possible cut-off frequency is recommended. Maximum cut-off is 12% of subcarrier frequency.

Companding: An optional compander decode board is available for installation in the SCD 10 when used in a subcarrier link having a SCG 10 subcarrier generator with a compander encode board. Companding will reduce noise and can mask certain types of main channel to subcarrier cross-talk.

Frequency Response:

+/- 1.5dB, 25 Hz to 95% of low-pass filter cut-off frequency.

Signal/Noise Ratio:

More than 68dB below 5kHz deviation (using SCG 10 as signal source directly connected to SCD 10 input. 225 microsecond pre/de-emphasis.

Audio Output Level:

+10 dBm maximum output level balanced and isolated into 600 ohms. Front panel adjustment range -60 dBm to +10 dBm.

Subcarrier Squelch:

Front panel adjustable squelch relay will squelch audio output over subcarrier level range of 0.1 to 2.0 volts input. Normally open relay contacts available at accessory "D" connector for external functions. LED on front panel indicates "squelch open" condition.

Metering:

Illuminated panel meter indicates subcarrier input level or audio output level.

Controls:

Meter Switch, Squelch Adjust/Squelch Open (LED panel indicator), Subcarrier Input Level Adjust, Audio Output Level Adjust

Connectors:

BNC jack for subcarrier input, 9 pin "D" connector for balanced audio output, squelch relay contacts. FSK output, ground, +18 to 20 volt input, +13.5 volt input, AC receptacle, 6-32 screw terminals for balanced 600 ohm audio input.

RF Protection:

All input/output circuits filtered for RF. Totally shielded and bonded aluminum closure.

Operating Temperature Range:

-10 degrees C to +50 degrees C.

Power Requirements:

120/220/240 VAC (voltage to be specified on original order), 50/60 Hz, 10 watts or 12-14 VDC at 50 ma negative ground or 24-28 VDC at 70 ma (28 volt operation require the APS-28/18 power supply),

AC Fuse Rating:

For 120 V, use 3/8 amp fuse.

PHYSICAL SPECIFICATIONS

Weight:

4.5 pounds
2.1 kilograms

Dimensions:

1-3/4 inches high x 19 inches wide x 12 inches deep.
4.45 cm high x 48.26 cm wide x 30.48 cm deep

Shipping Weight:

9 pounds domestically.
4.1 kilograms export.

SPECIAL NOTES

Specifications subject to change without notice.