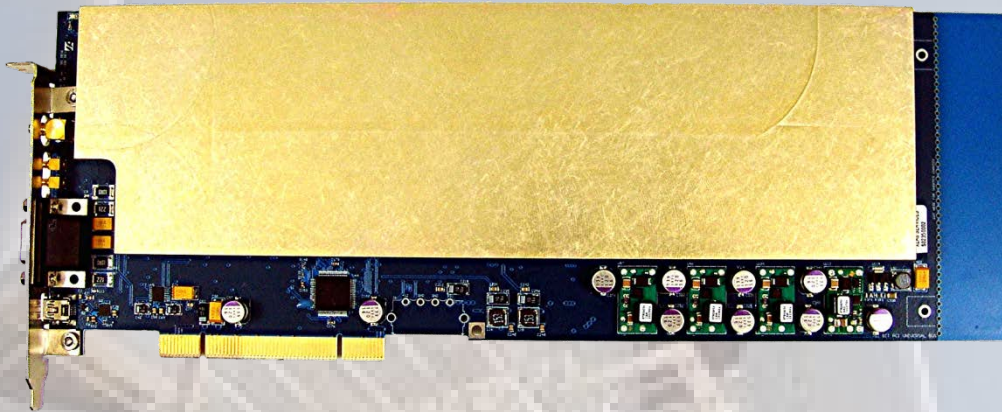




TRK600 TELEMETRY TRACKING RECEIVER CARD



FEATURES

- ❖ 200 MHz to 1150 MHz, 1415 MHz to 2485 MHz + optional 1850-2185 MHz
- ❖ Linear AM & AGC from -10 dBm to threshold
- ❖ 2 Scalable +/- 10, 20 and 50 dB/V AGC Outputs
- ❖ AGC Freeze
- ❖ <8 dB Noise Figure
- ❖ 8 IF SAW Filters from 300 kHz to 40 MHz
- ❖ User Configurable AM Low Pass Filtering
- ❖ 2 linear 70 MHz Outputs
- ❖ User-Selectable AGC Time Constants
- ❖ Excellent IF Rejection and Spurious Response Characteristics
- ❖ Compatible with SEMCO RCMS Network Software
- ❖ Serial and USB Communications + SDK for 3rd Party Software Development

DESCRIPTION - SEMCO's TRK600 provides for the full antenna tracking function in a single full-size PCI card. The TRK600 frequency bands cover 200-1150 MHz (supporting P-Band and down-converted C-Band), 1415-1625 MHz (Lower L-Band), 1625-1850 MHz (Upper L Band) and 2185-2485 MHz (S and E-Band). An optional 1850-2185 MHz is also available.

The TRK600 provides 2 linear 70 MHz outputs that are AGC controlled using 5 selectable AGC Time Constants, and which can be fixed at a given gain (frozen) for use in antenna G/(t) measurements. The TRK600 has 8 software-selectable IF filters ranging from 300 kHz to 40 MHz. Dynamic range with no compression is -10 dBm to threshold (approximately -110 dBm at 300 kHz IF filtering), and its safe maximum input level is +10 dBm.

Two highly linear, scalable and user-configurable AGC outputs are provided (+/-10, 20 and 50 dB/V). AM output is Low Pass filtered with user-configurable values ranging from 30 Hz to 50 kHz. The TRK600 is controlled using a serial communications format and SEMCO provides a Software Development Kit (SDK) for users that intend to incorporate the TDK600 into their Antenna Control Units (ACUs).





TRK600 TRACKING RECEIVER SPECIFICATIONS

PERFORMANCE

Frequency Bands

200 MHz to 1150 MHz
1415 MHz to 1625 MHz
1625 MHz to 1850 MHz
2185 MHz to 2485 MHz
Optional 1850 MHz to 2185 MHz

Tuning Resolution

100 kHz

Operating Environment and Controls

SEMCO RCMS Network SW in Windows 7 Operating System
Serial & USB Communications + SDK for 3rd Party Software Development

Dynamic Range

-10 dBm to Threshold

Noise Figure

<8 dB

Maximum Safe Input Level

+10 dBm

Image and Spurious Signal Rejection

>60 dB

IF Rejection

70 dB minimum; 80 dB typical

Tuner LO Tuning Resolution

100 kHz

IF Filters

8 SAW Filters (0.3, 0.75, 1.5, 3.3, 8, 15, 30 and 40 MHz)

AGC Time Constants

5 software selectable (.1 mS, 1 mS, 10 mS, 100 mS and 1000 mS)

AGC Outputs

2 scalable AGC outputs (+/-10, 20 and 50 dB/V)

AM Output

2 Vp-p into 75 or 50 ohms @ 50% AM Modulation

AM Low Pass Filter

User Selectable 30 Hz to 50 kHz Bessel Filter

70 MHz Outputs

2 linear outputs (-10 +/-2 dBm)

Reference Clock

Internal 10 MHz

POWER REQUIREMENTS

Input Power

PCI Backplane Power (+/-12 VDC, +5 VDC)
4 pin PC supply for remote mounting (no PCI Backplane)

PHYSICAL

Card Type

Full Size PCI

RF Input

SMC Connector

70 MHz IF Outputs

SMC Connector

AM Output

9 pin D Connector with User-Defined flyaway (BNC or custom)

AGC Outputs

9 pin D Connector with User-Defined flyaway (BNC or custom)

ENVIRONMENTAL

Operating Temperature

0° to 50° C

Storage Temperature

-20° to +70° C

Humidity

Up to 95% (non-condensing)

Altitude

Up to 30,000'

EMI

Designed to meet MIL-STD 461

Specifications are subject to change without notice. Contact the factory for detailed specifications applicable to specific part numbers and configurations

Systems Engineering & Management Co.
1430 Vantage Court
Vista, CA 92081-8596



(800) 995-0636, Ext.1125
FAX (760) 727-5200
www.semco.com