

Modulator IF OUTPUT

IF output power level: -5dbm, -15 dbm (-10 dbm typical)
 Output IF impedance: 75 Ohm
 Output return loss: -15 dB or better
 Output IF frequency: 70 MHz ±40 ppm
 Constellations: QPSK, 16QAM, 32QAM, 64QAM
 FEC: Reed-Solomon & Viterbi
 IF Output power adjust: 0.5 db steps
 IF Output Power accuracy: +/- .25 dB
 IF Output MER: 30dB

Demodulator IF Input

IF input power level: -5 dBm, -15 dBm (-10 dBm typical)
 Input IF impedance: 75 Ohm
 Input return loss: -15 dB or better
 Input IF frequency: 70 MHz ±100 kHz
 Constellations: QPSK, 16QAM, 32QAM, 64QAM
 FEC: Reed-Solomon & Viterbi
 CW Signal: Supports 70 MHz CW test tone
 Acquisition range: +/-100 KHz
 Threshold C/N @BER: 1 x10⁻⁶

Data Rates

(Based on Symbol Rate of 33 Mega Symbols)

QPSK: 60 Mbps
 16 QAM: 120 Mbps
 32 QAM: 150 Mbps
 64 QAM: 180 Mbps

Environmental

Operating: 14°F to 122°F
 -10°C to 50°C
 Survival (Storage) Range: -40°C to +158°F
 -40°F to 50°C

Standards

CE Safety Standard: CE EN60950
 Emissions: IAW EN301489-1, Table 2,3

Physical

Size: 1RU 19" CHASSIS
 Weight: 8 lbs. [3.6 kg]

MOD/Demod Connections (Rear Panel)

ASI/DS3/E3 (3): 75 Ohm BNC Female
 T1/E1, 10/100 Base T (2): RJ-45
 Summary Alarm: DB-9 Female
 RS-232 / RS-485: DB-9 Female

IF Panel (Rear Panel)

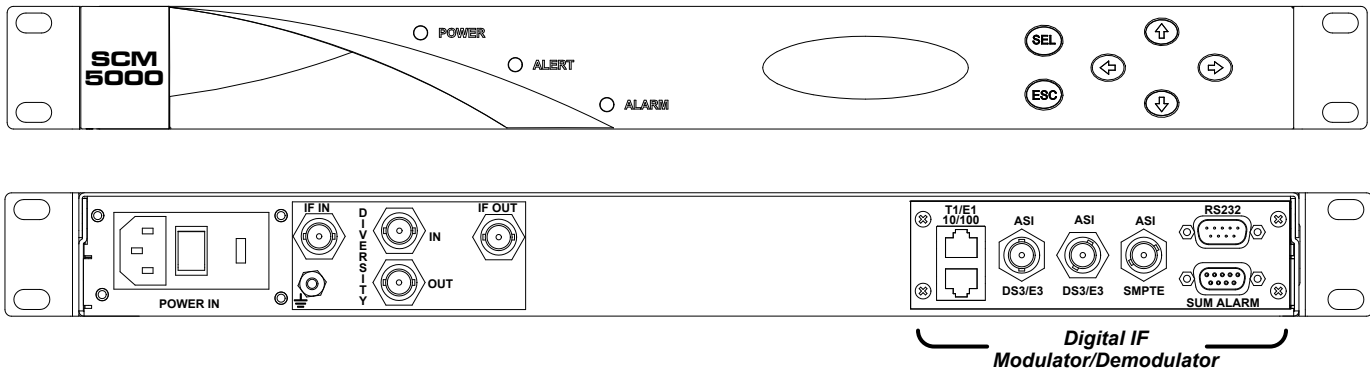
IF Input / Output (2): 75 Ohm BNC Female
 IF Output: 75 Ohm BNC Female
 Diversity In/Out (Optional): 75 Ohm BNC Female

POWER

AC Receptacle: IEC320-C14
 DC Receptacle: Weidmuller 2-pin

Front Panel

System Control: DB-9 Male



a Vislink company

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SCM5000

High Speed Digital Modem
for point to point applications
at data rates up to 170 Mbps



Overview

The SCM5000 is a high speed digital modem that offers the latest advances in error correction coding consistent with improved robustness and highly effective countermeasures to minimize the effects of dispersive fading. Unlike conventional modems, the occupied bandwidth of the SCM5000 can be adjusted by the user to fit any microwave channel from 5 MHz to 40 MHz wide. Depending on channel bandwidth, the aggregate data rates can reach up to 170 Mbps.

Product Features

MRC's SCM5000 was specifically designed to provide the maximum in flexibility for combined video and data payloads in a wide variety of point to applications. Most traditional modems employ a rigid architecture based on telecom interface hierarchy, forcing the user to restrict and frame video data at a DS-3/E3 or OC-3/STM-1 data rates and in fixed channel bandwidths

While the SCM5000 does include the more popular telecom interface options, such as T1/E1, and DS3/E3, it also includes variable rate ASI interface options that can support any data speed the user wishes, up the maximum system throughput. Duplex models offer a 10/100 baseT option that can pass up 95 Mbps continuously. In addition, the occupied bandwidth of the IF output is continuously adjustable from 5 to 40 MHz, to allow full use of the licensed channel spectrum and maximize your data throughput.

The new SCM5000 demodulator includes an improved adaptive equalizer that effectively combats the effects of dispersive multipath fading that can occur on longer paths. For the ultimate in multipath protection, we have included a packet based space diversity switching option that constantly compares the packets received at each antenna, and allows only the error free packets to pass through.

Benefits

- Digital Transmission rates up to 170 Mbps
- QPSK, 16QAM, 32QAM, 64QAM Modulation
- Signal interface for video or telecom
- Robust Reed-Solomon & Viterbi error correction
- Packet based Space Diversity capability
- High resistance to dispersive & multipath fading