

DM4000 Satellite Modulator

- The DM4000 is a digital modulator for traffic rates of up to 45 Mbits/s. It can be configured for use with any DVB-S (300 421) or DVB-T (300 744) applications with optional IDR (IESS 308), SMS or digital radio, Full serial remote control and monitoring is provided via an RS 232/485 port. Extensive diagnostics are available both via the front panel display or the serial remote port. Full event logging is carried out automatically.

Features

- QPSK, 8PSK or 16 QAM Modulation
- 70 / 140 MHz or L-band output
- DVB-T or DVB-S
- 1U Rack Unit
- Full remote control



Specification

RF SPECIFICATION

RF Output Range

950 - 1750 (Options; 50 – 90, 50-180) MHz

RF Frequency Temperature Stability

1 ppm maximum over operating range

RF Frequency Time Stability

1 ppm maximum per year

Frequency Step Size

100 Hz RF

Output Power Level

-10 to -35 dBm

+10 to -15 dBm (Option)

RF Output Impedance

50 Ω

Monitor Output

50 Ω , - 20 dBc

18V output on RF output connector

1.5A

RF output connectors

N-type for L-Band o/p,
TNC for other options

DATA INTERFACE

ASI

75 Ω BNC

CCITT G703 (Option)

75 Ω BNC

HSSI (Option)

25 way D type socket

SPI (Option)

25 way D type socket

IDR ESC data, ESC voice data, and backward alarms

(Option)

25 way D type socket

DATA PROCESSING

FEC rates

Data rates

Guard Intervals

Constellations

FEC rates

Data rates

Guard Intervals

Constellations

CONTROL & MONITORING

Local control

Soft touch front panel, LEDs, and 2 line

LCD display

Remote control

All front panel controls duplicated via

RS232 / 422 / 485 RCI

DVB-S Mode

Transport packet length 188/204

Data rate

FEC

Constellation

Frequency

Power

DVB-T Mode

Transport packet length 188/204

Guard interval

Data rate

FEC

Constellation

Power

DVB-S

$\frac{1}{2}$, $\frac{2}{3}$, $\frac{5}{6}$, & $\frac{7}{8}$

0.76 - 60 Mbps

N/A

QPSK

8 PSK

16 QAM

DVB-T

$\frac{1}{2}$, $\frac{2}{3}$, $\frac{5}{6}$, & $\frac{7}{8}$

3.732 – 31.67 Mbps

$\frac{1}{4}$, $\frac{1}{8}$, $\frac{1}{16}$, $\frac{1}{32}$

QPSK, 16-QAM,

64-QAM

IDR Mode (Option)

Differential encoding on/off

V.35 Scrambling on/off

Framing on/off

Data rate

Frequency

Power

General

Modulation on/off (provides continuous carrier)

Carrier on/off (attenuates carrier by >50 dB)

Spectral invert on/off

Compatibility DVB-S/ DVB-T (2k/8k 6/7/8

MHz)/ IDR (Option)

FEC rate

Interface select

ENVIRONMENTAL & PHYSICAL

Temperature

Operating

0 to +50°C

Storage

-20 to +70°C

Size

1RU chassis by 550 mm deep

Weight

6 Kg approx.

POWER

Operating Voltage

100 / 120 / 220 / 240 Vac $\pm 10\%$

Frequency

47 to 63 Hz

Power Consumption

90 W