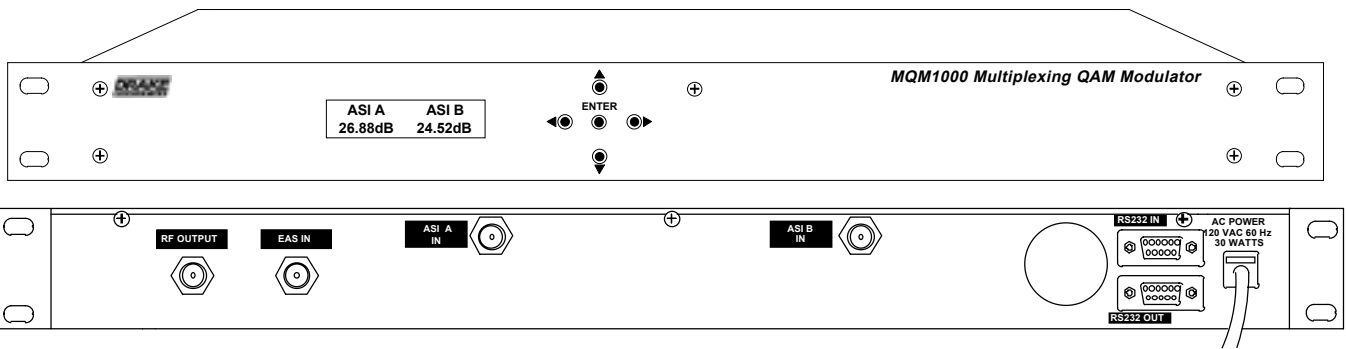


# MQM1000 Multiplexing QAM Modulator



## SPECIFICATIONS:

### DEMODULATOR (S)

**DQT1000 ONLY:** Not present - MQM1000  
Input Frequency Range: 54 to 864 MHz.  
Channel Plans (Menu selectable): Std. CATV, HRC, IRC, or Broadcast  
Input Channel Bandwidth: 6 MHz.  
Input RF Level Range: -28 dBmV to +30 dBmV  
Minimum Input Level per Mode: 8VSB: -28dBmV, 16VSB: -25dBmV, 64QAM: -20dBmV, 256QAM: -15 dBmV.  
Maximum Input Power (sum of all channels): Not to exceed -16 dBm.  
Input Impedance: 75 Ohms with Return Loss typically 8 dB.  
Image rejection: 40 dB.  
Adjacent Channel Rejection: 60 dB  
Noise Figure: Less than 12 dB.  
Demodulation Modes: 8VSB, 16VSB - ATSC  
16QAM, 32QAM, 64QAM, 128QAM, or 256QAM - ITUA  
64QAM, 256QAM, - ITUB  
Symbol Rates: Commonly used presets and user programmable.  
Equalizer Span: -6  $\mu$ S to +40  $\mu$ S.

### ASI INPUTS

**MQM1000-Two Inputs** 270 Mbps with desired transport stream of  
**DQT1000 ASI Option:** 10.76 MS/s, ATSC, 19.37 Mbps

**NULL PACKET PROCESSING:** DQT1000 and MQM1000 (fixed output clock mode)

### QAM MODULATOR

Modulation Modes: 16QAM, 32QAM, 64QAM, 128QAM, 256QAM, 512QAM or 1024QAM.  
Symbol Rate: 1 Ms/s to 7 Ms/s.  
FEC: ITUA (DVB) or ITUB (DigiCipher II).  
I/Q Phase Error: Less than 1 degree.  
Carrier Suppression: 45 dB.  
Channel Amplitude Error: Less than 1 dB.  
MER: Greater than 38 dB with blind equalizer.

### ANALOG EAS IF INPUT

Operating Input Level: +30 dBmV  $\pm$ 5 dB at 45.75 MHz, 75 Ohms  
Auto Switching Level: +20 dBmV minimum.

### UPCONVERTER RF OUTPUT

Output Frequency Range: 54 MHz to 1002 MHz.  
Channel Plan: Std. CATV, HRC, IRC, or Broadcast  
FCC offsets: Automatic, +12.5 or +25 kHz  
Frequency Stability:  $\pm$  5 ppm.  
Maximum Output Level: + 61 dBmV minimum, adjustable downward.  
Minimum Output Level: + 45 dBmV.  
Output Level Accuracy:  $\pm$  1 dB.  
Output Impedance: 75 Ohms with return loss better than 14 dB (within output filter passband).  
Spurious Outputs: -60 dBc from 40 MHz to 1000 MHz.  
Broadband Noise: Less than -12 dBmV (6 MHz BW @  $\pm$ 12 MHz).  
Phase Noise: -101 dBc @ 10 kHz offset

### RS232 CONTROL

Data Link: 2400, 4800, 9600, or 19,200 baud interface via serial cable.  
RS232 Input: DB-9 connector for connection to modem or PC.  
RS232 Output: DB-9 connector for connection to additional transcoders.

### GENERAL

Power: 90 - 132 VAC/ 60 Hz, 40 W maximum.  
Weight: 7 pounds  
Size: 19" W x 1.75" H x 11.5" D.  
Operating Temperature: 0 degrees C to + 50 degrees C

Specifications subject to change without notice or obligation.