

M28 DVB-T Modulator

The M28 board implements a subset of robust DVB-T modulation modes suitable for transmission of a single high quality channel of MPEG2. Its low power consumption makes it ideal for use in both portable and fixed equipment. Its output is designed to interface to an external quadrature modulator / RF upconverter. It can directly interface to and control Videsco's ES21 MPEG2 encoder.

DVB-T System

Standard: DVB-T to EN300-744.
Channel bandwidths: 6, 7, 8MHz.
FFT size: 2K.
Modulation: QPSK*.
FEC: 1/2, 2/3*.
Guard interval: 1/32, 1/16*.

Input interface

8 bit parallel transport stream interface.

Outputs

One or optionally two differential analogue I and Q outputs designed to drive a direct conversion to RF quadrature modulator.

Output impedance: 200 Ohm
Signal level – approx 1V peak to peak.

The optional second output allows the implementation of Cyclic Delay Diversity. This gives substantial protection from 'flat fading' – the main mode of failure of a COFDM system due to reflections from nearby objects.

** - Other parameters available, contact us for details*

Serial Control/Status interface

RS232, 38.4K baud, 8bits, 1 stop bit, no parity.

Configuration Switch

Up to 16 preset or user defined configurations, controllable by hexadecimal switch.

Power

Input voltage 6 to 35V
Power consumption 2-3W, depending on options and DVB-T mode.

The board can also supply 5V, 3.3V, 1.8V to the ES21 encoder, and also to RF upconversion circuitry.

Connectors

Digital I/O / power connectors: 0.1 inch box headers:
Transport stream in – 26 way, coder control / power out - 26 way, power in - 10 way.

Analogue output connector: 25 way screened D-type.

Dimensions

Board size: 100mm x 80mm.