Datasheet

V40-1100 COFDM DVB-T   Modulator   1-programme in one multiplex

- **Converts ONE A/V input or RGB / S-Video YPbPr* into a single COFDM DVB-T TV channel**
- **Simple front panel set-up with OLED function display. No computer required.**
- **VHF or UHF channel output for SD programmes**
- **PSI generation: SDT, NIT, LCN**
- **Adjustable RF output level**
- **Modular format for wall/bulkhead or DIN rail mounting**

V40-2000 COFDM DVB-T   Modulator   2-programmes in one multiplex

- **Converts two A/V inputs onto a single COFDM DVB-T TV channel**
- **Simple front panel set-up with OLED function display. No computer required.**
- **VHF or UHF channel output for SD programmes**
- **PSI generation: SDT, NIT, LCN**
- **Adjustable RF output level**
- **Modular format for wall/bulkhead or DIN rail mounting**

The V40-1100 and 2000 COFDM can take 1 or 2 - A/V signal sources and modulate them into a single UHF DVB-T channel in standard definition compatible with Freeview set-top boxes and IDTV's. The modulator has been designed to be simple to set up by the front panel, removing the need to use a computer or handset. A single DTT channel can be created in the VHF or UHF bands for use with larger, more complex commercial SMATV systems. Compatible with the modular format of the V90-440 Quad single channel filter amplifier and Fibre Optic transmitters. Can be wall / panel mounted or fixed on a DIN rail. Use V40-125 or V40-450 power supply units.

Model	V40-1100	V40-2000
Input standard	PAL (B, D, G, H, I, M, N, 60) : SECAM , NTSC (M, 4.43)	
Input Type	CVBS / S-Video / YPbPr component video 576i or 480i only	CVBS
Video input Frequency range | level | impedance	20Hz to 6MHz 1V ± 0.1V / 75Ω	
Audio input Level |Impedance | Level adjustment	20Hz to 15kHz | 775mV | 10kΩ | +6 to -6 in 2dB steps	
Resolution | Frame Rate	720 x 576 at 25 FPS or 720 x 480 at 30FPS | 25max for PAL, 30 FPS NTSC	
Encoding	ISO/IEC11172-3 (MPEG1 audio) layer 2 compliant	
Sampling rate | compression bit rate | System bit rate	44.1kHz | 256Kbps | 2 to 9 Mb/s	
Audio mode	Stereo	
Modulation | Transmission mode	QPSK, QAM16, QAM64 | 2K	
Channel bandwidth | Guard interval	7/8MHz ¼, 1/8, 1/16, 1/32	
RF Output Level | Impedance | Frequency range	85dBμV / 75μΩ / 110 -862MHz	
Level adjustment	0 to -15.5dB / 0.5dB steps	
Frequency range of RF loop-thru I combining loss	47 – 2150MHz / 2.5dB	
Return loss	≥10dB	
Fine tuning of RF carrier frequency offset	±125kHz / 250kHz in 0.25MHz steps	
Channel Bandwidth	7 / 8MHz	
Output C/N ratio | MER	C/N ≥50dB MER ≥35dB	
Current consumption	12V 0.5A Use V40-125 or 450 Power supplies	12V 0.65A Use V40-125 or 450 Power supplies

Operating temperature	0^0C - +50^0C
Dimension / Weight packed	198 x 107.5 x 36mm 1.06kg | 1.12kg

V40-1000 / 2000 can be built into a more complex headend where several signal sources are required in a system.

Each module can be mounted on headend board or wall via the keyhole fixing slots or by standard DIN rail to form a multi-channel headend. In the above illustration four modulators are connected together using the supplied "Z" links to form an RF loop-through. The DC is "daisy chained" across a ribbon cable from the first unit supplied with 12V DC from a V40-125 power supply. The illustrated headend will provide 8 programme sources in four UHF TV channels in either the VHF or UHF bands.

The V40-1000 / 2000 modulator does *not* require expensive handsets, software or laptop computers to set up the modulator parameters as this is done from the front panel joystick, OLED display and built-in software.

The control software allows the set-up of all DTT parameters including logical channel number (LCN), Network Information Table (NIT) etc, etc and controls the fully agile output frequency. For ease of use in multichannel headends both the input source and RF output can be turned on/off in the software to aid installation and set-up.
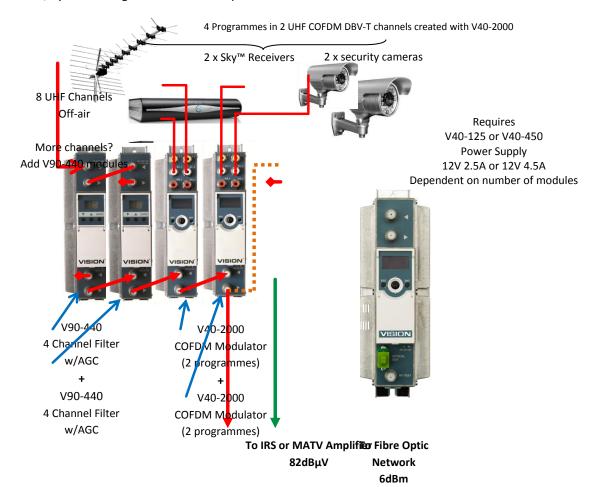
Vision Multi-modular headends

V90-440   **QUAD Single Channel Filter Amplifier**

V40-1000, V40-2000   **Single & Dual Source COFDM DVB-T modulators**

V100-061, 062   **Single & Dual output Fibre Optic Transmitters**

Vision Multi-modular headends can be built-up professionally, quickly and efficiently for all headend requirements for small, medium and large MATV and IRS installations in commercial and residential locations. Using a common modular format Vision's multi-modular headend can be designed and adapted to suit the building and ever expanding signal requirements, by interlinking the modules as required.

4 Programmes in 2 UHF COFDM DBV-T channels created with V40-2000

2 x Sky™ Receivers   2 x security cameras

8 UHF Channels Off-air

More channels? Add V90-440 modules

Requires
V40-125 or V40-450
Power Supply
12V 2.5A or 12V 4.5A
Dependent on number of modules

V90-440
4 Channel Filter
w/AGC
+
V90-440
4 Channel Filter
w/AGC

V40-2000
COFDM Modulator
(2 programmes)
+
V40-2000
COFDM Modulator
(2 programmes)

To IRS or MATV Amplifier
82dBµV

To Fibre Optic
Network
6dBm

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