

Datasheet

V90-440 Quad single channel UHF filter / amplifier

- Four separate fully agile single channel filter/ amplifiers in one module
- 4 x 8MHz SAW filters in each channel for high selectivity >40dB
- Suitable for any UHF Freeview channels SD (DVB-T) or HD (DVB-T2) with AGC
- Integrated LTE input suppression filter
- Simple “On-site” tuneable with front panel buttons. **No computer needed!**
- Din rail or direct wall/bulkhead mounting



The Vision V90-440 four channel filter/amplifier can filter and process four separate UHF TV channels to equalise each channel before an SMATV or IRS network where signals arrive from the sources at different levels. Each of the four channel filters are fully agile within the UHF band and employ sophisticated SAW (surface acoustic wave) filters for superior filtering, high selectivity and high adjacent channel rejection. V90-440 is ideal for multi-channel digital or analogue headends.

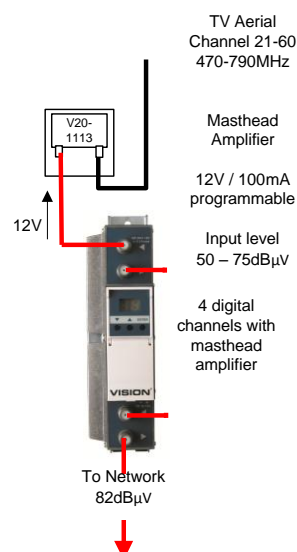
The V90-440 is modular in format and can be combined with other modules to create as many processed channels as required by fitting on to a DIN rail or directly to a wall or systems board. The output incorporates an RF “loop-thru” for simple combining of signals. 12V is available at the input (programmable) to power a pre-amplifier or masthead amplifier. Uses the same modular format as V40-2000 COFDM modulator for professional digital SMATV headends.

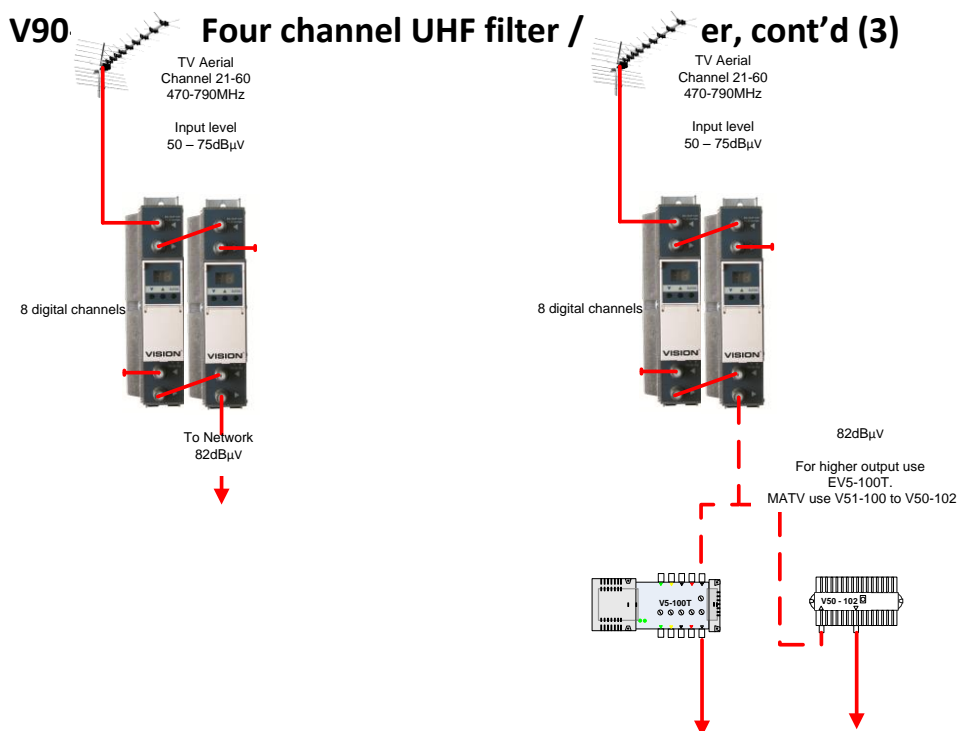
Each filter amplifier incorporates automatic gain control (AGC) for output stability making V90-440 ideal as a headend in larger systems and for feeding terrestrial signals into a fibre optic network.

V90-440 Four channel UHF filter / amplifier, cont'd (2)

Model	V90-440
RF INPUT	2 x F Female Loop-Thru
Number of channel filters	4
TV standard	DVB-T, DVBT-2
Input Frequency / Channel Bandwidth	470 ~ 790MHz / 8MHz
RF Input level / impedance	50 ~ 75dBμV / 75Ω
Input Loop-Thru Gain	0 ± 1dB
Return Loss	>10dB
External power to pre-amplifier	12v / 100mA max
RF OUTPUT	2 x F Female Loop-Thru
Output level / Impedance	82dBμV / 75Ω (32 – 7dB Gain AGC controlled)
MER of DTT signal	≥36dB with 38dB at input
RF Loop-Thru frequency range	47 ~ 2150MHz
RF Loop-Thru DC Pass / insertion loss	0.3A / 1.5dB
Output return loss / Noise figure	≥10dB / 8dB
Selectivity (typical)	>40dB, +2MHz from 8MHz channel edge
Channel Offset	±125KHz / ±250KHz
Spurious signal	≤-55dBc
Flatness in channel bandwidth	±1.5dB
Power / Current Consumption	12V DC / 0.75A via screw terminals
Operating temperature	0°C ~ +50°C
Dimension / Weight	198x108x49 / 1kg

V90-440 is simple to use :-





V90-440 can be used to filter off-air TV signals from an aerial or several aerials. It is also ideal for equalising signals from several sources such as receivers and modulators and balancing these signals with off-air channels.

If an output level of greater than 82dBuV is required then use the V90-440 as a pre-amplifier to a larger launch amplifier such as EV5-100T in an IRS network or V50-102 in the case of a large MATV installation. The AGC (automatic gain control) will stabilise any changes in the incoming signal level providing a fixed level output. This is particularly useful in controlling the signal level at each subscriber point or when feeding a fibre-optic transmitter.

V90-440 is very simple to set up from the front panel buttons without the need for a computer or handset. Each module is powered from a 12V power supply (V40-125) via the front panel terminals. The V40-125 power supply can provide up to 2.5A, enough for 3 x V90-440 (12 UHF channels).

The V90-440 is easily fixed to a bulk-head, headend board or wall mounted, and can be mounted on a standard DIN rail where several filters are assembled into a large headend.