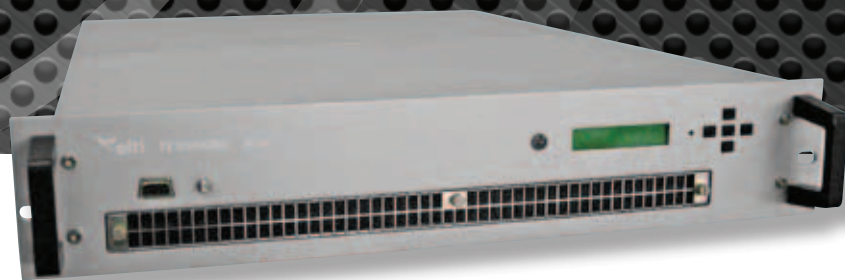


# ANALOGUE – DIGITAL REPEATERS

All in one solution.

## TYPES

FPT98AD CH/CH 20W/5W  
FPT98AD CH/CH 50W/10W  
FPT98AD CH/CH 100W/25W  
FPT98AD CH/CH 200W/50W  
FPT98AD CH/CH 500W/200W  
FPT98AD CH/CH 1kW/400W



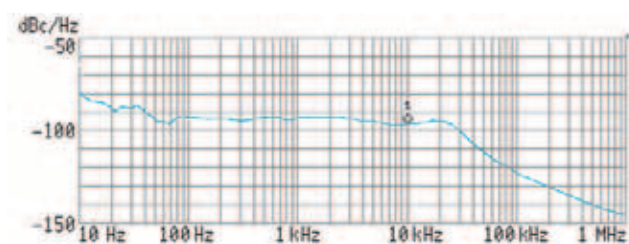
**The Elti front access series is the product of many years experience in analogue and digital technology. Providing a custom solution for special needs, this device offers a smooth changeover from analog to digital broadcasting by automatically detecting the type of the input signal and re-transmitting it accordingly. All recent settings for digital and analogue modes are saved so you can transmit with the same settings when switching over.**

With a special high precision oscillator we are able to provide outstanding performance in both analogue and digital transmission. The use of Elti power amplifiers enables you to have a perfect solution for analogue and digital network in one device. Protection circuits and microprocessor operated controls guarantee maximum reliability. The whole series is fitted with remote software upload through internet or WEB server for management and control.

# Specifications

Analogue - Digital repeater	
<b>OPERATING IN ANALOGUE MODE</b>	
<b>OUTPUT PARAMETERS</b>	
Output frequency range	VHF (170 - 240MHz), UHF (470-862 MHz)
Output power vision carrier peak sync level (W)	20, 50, 100, 200, 500, 1.000
Output return loss (fvision - 0,75 to fvision + 6 MHz)	≥ 18 dB
Output power level variation versus input voltage in range 200 μV ÷ 10 mV	≤ ±0,3 dB
IMD products inside the channels fSLK (-0,75 to 5,75 MHz) (Ufv=-8dB, Ufb=-16dB, Ufs=-10dB)	< - 58 dB
Signals on adjacent channels and harmonics (two input unmodulated signals: Ufv=0dB, Ufs=-10dB)	< - 60 dB UHF
Other spurious products	< 70 dB, max 1 mW
<b>RETRANSMISSION QUALITY</b>	
Picture S/N ratio (unweighted/weighted)	> 55/62 dB
Sound S/N ratio (unweighted/weighted)	> 54/60 dB (at df ±30kHz)
Sync pulse compression	< 10 %
Differential gain	< ± 5 %
Differential phase	< ± 3 °
<b>OPERATING IN DVB-T/T2 MODE</b>	
<b>OUTPUT PARAMETERS</b>	
Output frequency range	VHF (170 - 240MHz), UHF (470- 862 MHz)
RF output power (W rms)	5, 10, 25, 50, 200, 400
Output return loss	≥ 18 dB
Power stability	< ± 0,25dB
MER	> 31dB
Output spectrum meets the requirements of non critical and critical (Optional) mask according to EN 300 744, EN 302 755	
<b>GENERAL INPUT PARAMETERS</b>	
Input frequency range	VHF (170 - 240MHz), UHF (470- 862 MHz)
Input RF impedance	50 Ω
Input coaxial connector	N
Input return loss (fvision - 0.75 to fvision + 6 MHz)	≥ 21 dB
Input voltage range (vision carrier peak sync level)	0,5 mV to 10 mV (-53dBm to -27dBm)
<b>LOCAL OSCILLATOR</b>	
Synthesizer	VHF (170 - 240MHz), Frequency range in UHF version = 430 to 900 MHz; 1 Hz resolution
Phase Noise	At 10 Hz < - 60 dBc/Hz At 1 kHz < - 90 dBc/Hz At 100 kHz < - 120 dBc/Hz
Main output level	+ 12 dBm ± 2 dB / 50 Ω
OCXO stability 2 10 <sup>-8</sup>	phase noise < -130 dBc / Hz @ 10 Hz
<b>IF PARAMETERS</b>	
Vision IF frequency	38,0 - 38,9 MHz - depends on standard
IF filter	SAW acoustic device

For metering, protection circuits, indications, other specifications, control, monitoring, power consumption, weight and dimensions please go to page 36 chapter FPT analogue translators.



Frequency offset	Phase noise
10 Hz	< -79,5 dBc/Hz
100 Hz	< -93,0 dBc/Hz
1 kHz	< -93,0 dBc/Hz
10 kHz	< -96,5 dBc/Hz
100 kHz	< -123,5 dBc/Hz
1 MHz	< -145,0 dBc/Hz