

GAPFILLER FOR MULTICHANNEL DIGITAL TV



- **Multichannel Digital On-channel Repeater**
- **Superior Echo Cancellation Algorithm**
- **Perfect for Gap Filler area in SFN Network Deployment**
- **AGC (Automatic Gain Control)**
- **Multi-standard Capability (DVB, ISDB-T, DTMB, ATSC, ATSC-MH)**
- **Remote management capability**

PRODUCT APPLICATION:

THE MULTICHANNEL GAPFILLER provides a complete digital coverage solution with echo cancellation to cancel system feedback between the transmitting and receiving antennas.

The innovative software-defined radio technology provides a unique way to extend the range of multichannel SFN digital TV networks.

This unit incorporates signal processing algorithms to provide superior echo cancellation. This means that stable operation can be achieved even with a feedback (undesired) signal larger than the incoming (desired) signal.

The Multichannel Gapfiller offers one of the lowest latency of the industry (less than 10 μ S). This low time delay allows the receiver to deal with two different signals (main transmitter and Gapfiller output) without allowing them to interfere with each other and degrade reception.

The state-of-the-art pre-correction circuits plus the compact size (3RU) is designed to perfectly satisfy the critical need of a Broadcast Network to have expanded coverage.

RF INPUT	
SIGNAL TYPE	DVB-T/H up to 6 multiplex
FREQUENCY RANGE	Band IV & V: 470 to 870 MHz
CONNECTOR	N Female
RETURN LOSS	> 23dB
RF LEVEL NEEDED FOR OPERATION	
RF IN LEVELS	> 45dB μ V
MER (RMS)	> 22dB
BER BEFORE VITERBI	<1e-3
SIGNAL PROCESSING	
WIDEBAND USEFUL	Up to 6 multiplex: 48 MHz
ISOLATION LEVEL BETWEEN THE RECEPTION ANTENNA AND THE TRANSMISSION ANTENNA FOR CORRECT OPERATION	\geq 70dB
FREQUENCY STABILITY	< \pm 0.05dB for 1 year
AGC	Manual and Automatic
AGC DYNAMIC RANGE	\pm 10dB
TRANSMISSION	
OUTPUT POWER	Up to 6 multiplex: Total 5 Wrms
OUTPUT FILTER	Wideband: 48MHz Max Power: 50W Insertion loss: <1dB Return loss: >25dB
HARMONICS AND SPURIOUS OUT OF BAND	< -60dBm
CONTROL AND VISUALIZATION	
PARAMETER VISUALIZATION	<u>Digital:</u> Parameters monitoring on LCD -Output Power -Reflected power -Final stage voltage -Final amplifier consumption -Temperature <u>Analogue:</u> RF input level indicator
REMOTE CONTROL/TELEMETRY	DB9 connector

¹ Specifications subject to change without prior notice.

Product Specification¹

CABLE AML

EQUIPMENT PROTECTIONS	Over-output power Reflected power Loss of input signal Final stage voltage Final stage over-current Temperature
ELECTRICAL PROTECTION	Gas discharger + outside varistor box
GENERAL	
POWER SUPPLY	90 ~ 260 V A C 50/60Hz
CONSUMPTION	220W
OPERATING TEMPERATURE	-5°C ~ + 45°C
COOLING	Forced Air
MAX RELATIVE HUMIDITY	95%
DIMENSIONS (5W MODEL)	3RU 19" stainless steel rack It is provided on 5RU 19' rack.
WEIGHT	11Kg approximately