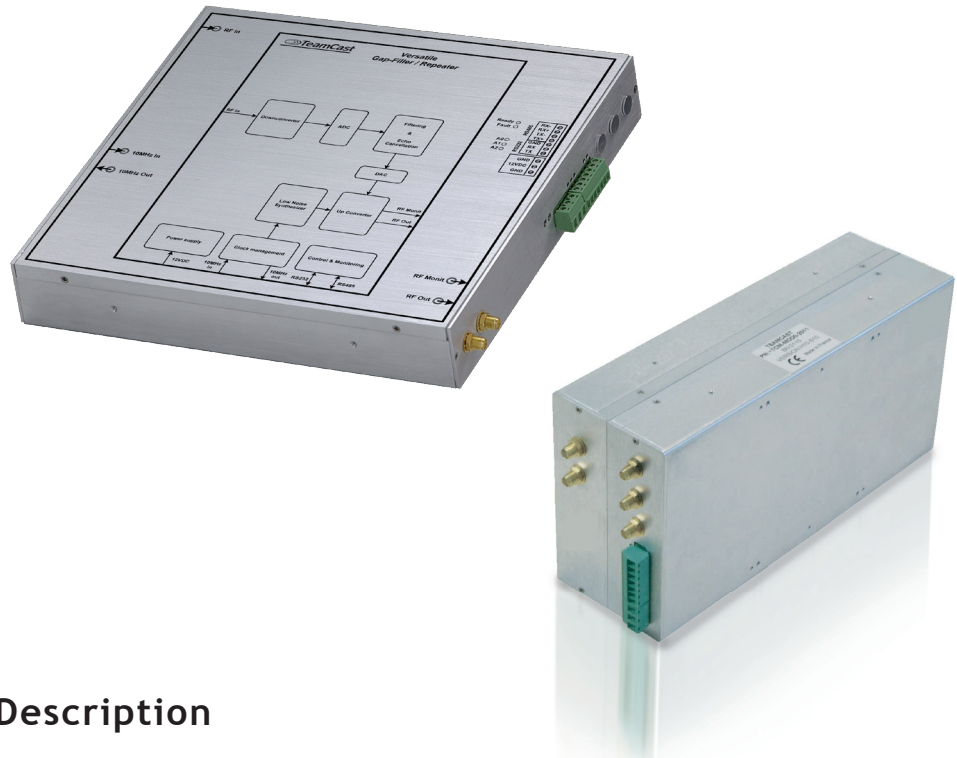


GFX-0320

DAB Versatile Gap-Filler Engine

The advanced Gap-Filler engine for DAB networks.

- Compact OEM modules
- Fast time to market
- High performance digital processing
- Versatility of Standards



Key features :

- No need for channel input filter
- SFN compliant Gap-Filler
- High frequency selectivity
- Powerful digital echo canceller
- VHF supported
- Linear & Non-Linear pre-correction circuits
- Compact size for easy OEM integration

Description

The GFX-0320 is the most integrated and cost effective versatile Gap-Filler product family addressing the OEM market. It provides the opportunity for transmitter manufacturers to launch their own non-regenerative Gap-Filler and Repeater product ranges for the DAB/T-DMB market.

Compact OEM modules

As with all TEAMCAST modules, the GFX-0320 product consists of a compact and powerful unit. GFX-0320 modules include, within a single package, a RF down-converter, a digital processing platform and an up-converter. Their small size enables the manufacturers to develop swiftly their own small-size Gap-Filler/Repeater product range, that can meet the space constraints of small transmission station installation.

High performance digital processing

The GFX-0320 engines can retransmit either on the same frequency (Gap-Filler mode), or on a different channel (Transposer mode). When used in the Gap-Filler mode, they exhibit a low transfer delay and enables Single Frequency Network coverage to be expanded efficiently. All signal processing is done digitally at an intermediate frequency level. An integrated digital echo cancellation algorithm enhances the overall system stability and performances. An additional benefit is the embedded digital shaping filter which enhances performance to give higher frequency selectivity (i.e. higher robustness against adjacent channel interference). Simple to use linear and non-linear pre-correction circuits are incorporated to compensate for output filter and power amplifier characteristics.

Emergent DAB markets

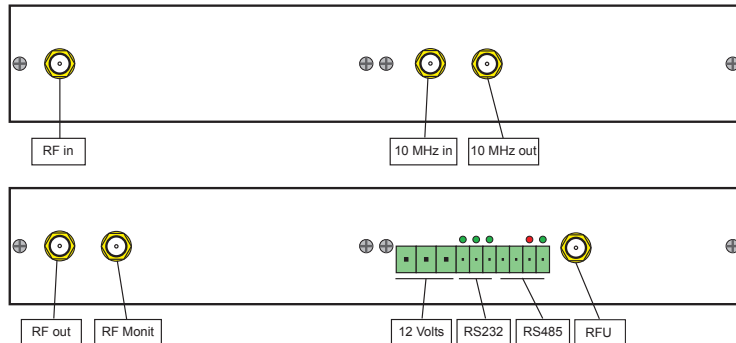
The GFX-0320 takes benefit from TEAMCAST's strategy for rapid module development as new standards and specifications evolve. The GFX-0320 product supports DAB and T-DMB radio network applications.

GFX-0320

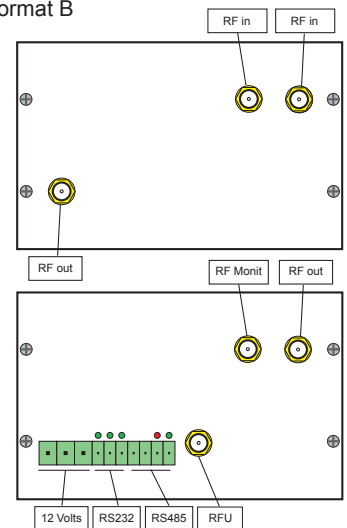
DAB Versatile Gap-Filler Engine

Connectors

Size format A



Size format B



Specifications

■ Standard compliance

- o VHF/1.5 MHz: DAB/T-DMB

■ Applications

- o SFN Gap-Filler & Transposer

■ RF Input

- o VHF frequency range: 170 MHz to 240 MHz
- o SMA female connector
- o -72 dBm to -15 dBm, max. 0dBm

■ Echo cancellation

- o Latest state-of-the-art technology
- o Very reactive algorithm
- o High echo signal rejection
- o Multipath and coupling echoes

■ Digital pre-correction circuits

- o Linear pre-correction (for output filter)
- o Non-Linear pre-correction over a 20 MHz bandwidth

■ Output shoulders ⁽¹⁾

- o > 55 dB @ 970 kHz with shaping filter (DAB)

■ Control & Monitoring

- o RS-232 C & RS-485

■ Physical

- o Single supply voltage (12 VDC)
- o Power Consumption: 38 W max
- o 220 x 220 x 35 mm (size A)
- o 220 x 110 x 70 mm (size B)
- o Temperature: 0°C to 50°C

(1) Values measured with an input signal having a shoulder level > 50 dB at a nominal input level (OFDM).

Ordering Information

XTTM-GFX1-0320

Gap-Filler/Repeater engine - VHF - 1.5 MHz DAB/T-DMB

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