

Get MORE from your NETWORK.



### KEY FEATURES

- ▣ Increases the network downstream capacity by 650 MHz.
- ▣ Supports a total of 500MHz of upstream capacity.
- ▣ Passive transfer of legacy bands featuring fail-safe continuous legacy service.
- ▣ Equipped with power level control (AGC/TGC) providing high stability over extreme temperature changes.
- ▣ Excellent RF characteristics enable seamless integration to all the legacy cable networks.
- ▣ Triplex filters supply optimal performance within all operating spectral bands.
- ▣ Phase-locked block multiplexer and demultiplexer technology and the use of a pilot ensure excellent amplitude stability, frequency accuracy and frequency stability.
- ▣ Interfaces with all standard node devices.
- ▣ Very modular and easy to set up.



## XFR3000/XFR3000S

UltraBand™ Bi-Directional Amplifier

The UltraBand XFR3000/XFR3000S is a wideband bi-directional amplifier unit that is co-located with the current legacy amplifier. The XFR3000 multiplexes one Vyvo downstream block and one Vyvo upstream block with legacy block (5-1003MHz) onto one coaxial cable output.

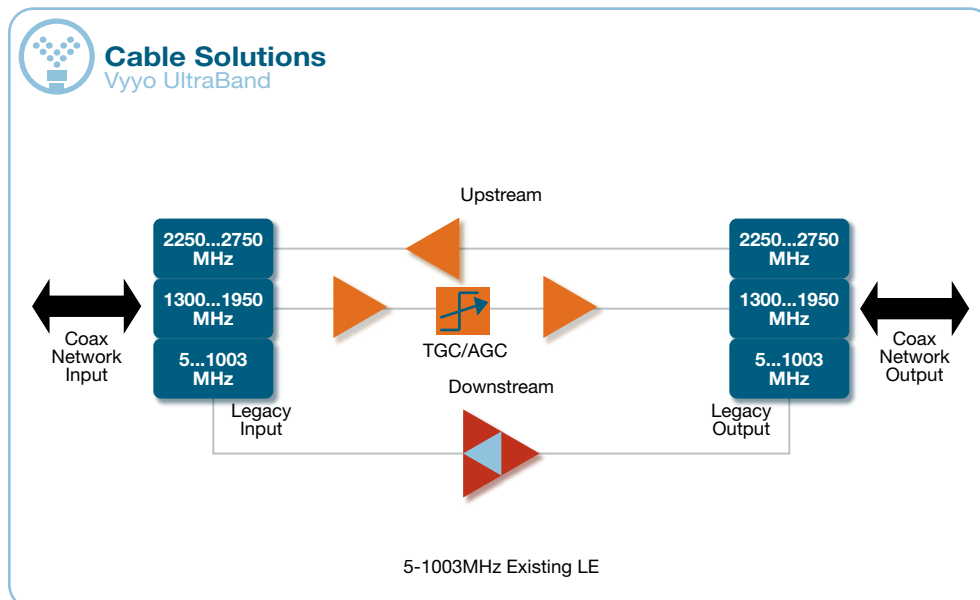
In the UltraBand downstream, the XFR3000/XFR3000S receives up to 650MHz of bandwidth from the Vyvo XHUB3006 and, through a Vyvo's block amplifying technology, amplifies with low distortion and multiplexes it onto the coax network. In the upstream, the XFR receives up to 500MHz within the UltraBand upstream frequency plan and amplifies the discrete upstream blocks.

The XFR uses a patent-pending amplifying block technology. This technology combined with the use of a pilot, ensures excellent amplitude stability. Advanced MMIC amplifier technology is used for superior RF performance.

XFR3000/XFR3000S modular triplex internal filters are used to ensure best performance within all operating spectral bands. The triplex filter is a passive module designed with excellent group delay, high isolation and low insertion loss for all legacy/Vyvo upstream and downstream bands. An additional benefit of the triplex filter is the increased surge protection between the XFR3000 and the coaxial network.

The XFR3000 is set at the factory for 7dB output tilt at the Vyvo Downstream.

The XFR3000S is set at the factory for 1dB output tilt at the Vyvo Downstream.



# XFR3000/XFR3000S

UltraBand Bi-Directional Amplifier

## XFR3000 Specifications\*

| Parameters                          | Unit      | CATV Band         | Vyyo Downstream Band | Vyyo Upstream Band |
|-------------------------------------|-----------|-------------------|----------------------|--------------------|
| Pass Band                           | MHz       | 5-1003            | 1300-1950            | 2250-2750          |
| Operational Gain                    | dB        | -0.9 <sup>1</sup> | 46                   | 46                 |
| Level Control TGC/AGC               | dB        | N/A               | ±3/±4                | ±3/NA              |
| Gain Slope                          | dB        | N/A               | 7                    | 3                  |
| Flatness                            | dB        | ±0.15             | ±0.5                 | ±0.5               |
| Noise Figure <sup>2</sup>           | dB        | N/A               | 10                   | 7                  |
| Nominal Output Level <sup>3</sup>   | dBmV/6MHz | N/A               | 39/46                | 43/46              |
| C/N In Band                         |           | N/A               | 49                   | 51                 |
| Return Loss                         | dB        | -18               | -14                  | -14                |
| Noise at 1003MHz                    | dBmV/Hz   | -94               | N/A                  | N/A                |
| Plug In Equalizer (1 dB step)       | dB        | N/A               | 0-6                  | 0-5                |
| Plug In Cable simulator (1 dB step) | dB        | N/A               | 0-10                 | N/A                |

## XFR3000S Specifications\*

| Parameters                          | Unit      | CATV Band         | Vyyo Downstream Band | Vyyo Upstream Band |
|-------------------------------------|-----------|-------------------|----------------------|--------------------|
| Pass Band                           | MHz       | 5-1003            | 1300-1950            | 2250-2750          |
| Operational Gain                    | dB        | -0.9 <sup>1</sup> | 43                   | 46                 |
| Level Control TGC/AGC               | dB        | N/A               | ±3/±4                | ±3/NA              |
| Gain Slope                          | dB        | N/A               | 1                    | 3                  |
| Flatness                            | dB        | ±0.15             | ±0.5                 | ±0.5               |
| Noise Figure <sup>2</sup>           | dB        | N/A               | 10                   | 7                  |
| Nominal Output Level <sup>3</sup>   | dBmV/6MHz | N/A               | 42/43                | 43/46              |
| C/N In Band                         |           | N/A               | 49                   | 51                 |
| Return Loss                         | dB        | -18               | -14                  | -14                |
| Noise at 1003MHz                    | dBmV/Hz   | -94               | N/A                  | N/A                |
| Plug In Equalizer (1 dB step)       | dB        | N/A               | 0-6                  | 0-5                |
| Plug In Cable simulator (1 dB step) | dB        | N/A               | 0-10                 | N/A                |

## Additional Specifications

| Parameter                      | Unit      | Spec                                |
|--------------------------------|-----------|-------------------------------------|
| RF Test Point                  | dB        | 20±1.0                              |
| Hum Modulation at 15A          | dBc       | 70                                  |
| Power Consumption              | W         | 31                                  |
| AC Input Voltage               | VAC       | 38-90                               |
| AC Current Draw                |           |                                     |
| @90VAC                         | A         | 0.60                                |
| @60VAC                         | A         | 0.76                                |
| Housing Dimensions (L x D x W) | inch / mm | 14.6 x 10 x 5.6 / 371 x 255 x 143.5 |
| Weight                         | lbs / Kg  | 15.4 / 7.0                          |
| Operating Temperature          | °F / °C   | -40 to +140 / -40 to +60            |
| Connectors                     |           | 5/8" x 24 threads per inch          |

\*All specifications are typical unless otherwise noted.

\*In the interest of product improvement specifications are subject to change.

<sup>1</sup> Typical insertion loss at 1003MHz per triplexer filter module.

<sup>2</sup> Measured with 0dB input attenuator.

<sup>3</sup> Measured with 7dB positive tilt, 39 dBmV at 1300MHz.



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