



## XBR3002/XBR3003 XBR3002S/XBR3003S

UltraBand™ Wideband Bi-Directional Bridger Amplifier

The UltraBand XBR is a high-gain wideband bi-directional bridger amplifier that is co-located with the current legacy bridger amplifier. In the Vyvo downstream, the XBR receives up to 650MHz of bandwidth from Vyvo's XHUB3006, and through a proprietary block amplifying technology, amplifies with low distortion and multiplexes it onto the coax network. In the upstream, the XBR receives up to 500MHz within the UltraBand upstream frequency plan and amplifies the discrete upstream blocks.

Vyvo's patent-pending amplifying block technology and the use of a pilot ensures excellent amplitude stability. Advanced MMIC amplifier technology is used for high RF performance.

Modular triplex filters are used internally 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 XBR and the coaxial network.

The XBR3002 multiplexes one UltraBand downstream block and up to 10 UltraBand upstream blocks with legacy block (5-1003MHz) onto two coaxial cable outputs.

The XBR3003 multiplexes one UltraBand downstream block and up to 10 UltraBand upstream blocks with legacy block (5-1003MHz) onto three coaxial cable outputs.

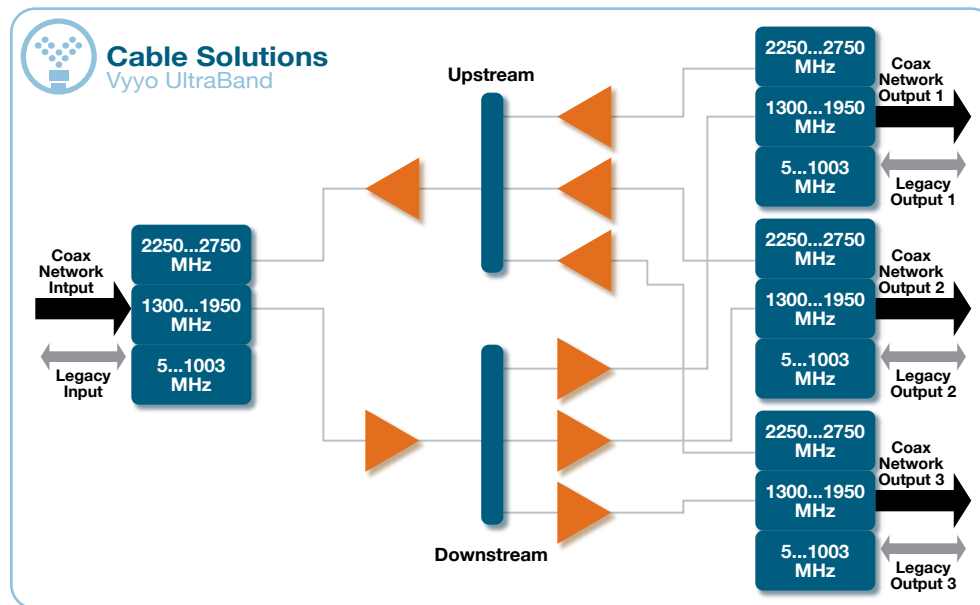
The XBR3002/XBR3003 is factory set to 7dB output tilt at the Downstream. The XBR3002S/XBR3003S is factory set at 1dB output tilt at the Downstream.

Get MORE from your NETWORK.



### KEY FEATURES

- ▣ Increases the network downstream capacity by 650 MHz.
- ▣ Supports a total of 500MHz of upstream capacity.
- ▣ Flexible design supports two or three coax network outputs.
- ▣ The use of a proprietary screwless seizure mechanism reduces the likelihood of Common Path Distortion (CPD).
- ▣ Passive transfer of legacy bands features 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.
- ▣ Interfaces with all standard node devices.
- ▣ Very modular and easy to set up.



# XBR3002/XBR3003

UltraBand Wideband Bi-Directional Bridger Amplifier

## XBR3002/XBR3003 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>	39/46	43/46
Gain Slope	dB	N/A	7	3
Flatness	dB	±0.15	±0.5	±0.5
Noise Figure <sup>2</sup>	dB	N/A	10	10
Level Control TGC/AGC Range	dB	N/A	±3/±4	±3/NA
Nominal Output Level <sup>3</sup>	dBmV/6MHz	N/A	46	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

## XBR3002S/XBR3003S 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
Gain Slope	dB	N/A	1	3
Flatness	dB	±0.4	±0.5	±0.5
Noise Figure <sup>2</sup>	dB	N/A	10	10
Level Control TGC/AGC Range	dB	N/A	±3/±4	±3/NA
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 (XBR3002/3 @ 90VAC)	W	50/58
AC Input Voltage	VAC	38-90
AC Current Draw (XBR3002/3)		
@90VAC	A	0.83/0.93
@60VAC	A	1.14/1.29
Housing Dimensions (L x D x W)	inch / mm	18.5 x 11 x 8.3 / 470 x 279 x 210
Weight (XBR3002/3003)	lbs / Kg	24.8/11.25 26.5 / 12
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.

<sup>1</sup>In the interest of product improvement specifications are subject to change.

<sup>2</sup>Typical insertion loss at 1003MHz per triplexer filter module.

<sup>3</sup>Measured with 0dB input attenuator and 0 dB input equalizer

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



6625 The Corners Parkway, Suite 100  
Norcross, GA 30092  
678.282.8000 Tel  
770.447.2405 Fax  
www.vyyo.com  
cable@vyyo.com

Copyright © 2003-2007 Vyyo Inc. All rights reserved. Vyyo, the Vyyo logo and UltraBand are trademarks of Vyyo Inc. All other trademarks mentioned herein are the property of their respective owners. Features and specifications subject to change without notice.

XBR.04.07