



XHUB3006

UltraBand™ Block Multiplexer & Frequency Converter

Located within the HFC plant, between the fiber node and the coax distribution plant, Vyvo's UltraBand XHUB3006 is a block multiplexer and frequency converter. In the downstream, the XHUB3006 receives up to 105 additional CATV carriers from the fiber node and through patent-pending block division multiplexing technology, up converts the additional CATV carriers and places those carriers above the current 1 GHz legacy band increasing the downstream capacity of the coax network by 650 MHz. The XHUB3006 increases the system upstream capacity up to 130 MHz.

In the downstream direction the XHUB3006 passively combines the legacy (5-1003MHz) signals with the block upconverted Vyvo UltraBand (1300-1950MHz) and distributes the signals to two output ports.

On the return path the XHUB3006 receives five upstream blocks: a legacy block (U4) and four multiplexed blocks (U6, U7, U8, U9). The XHUB3006 passively transfers the legacy upstream blocks and both de-multiplexes and down converts the four additional UltraBand blocks into standard upstream bands operating between 10-42MHz for transmission from the node to the headend.

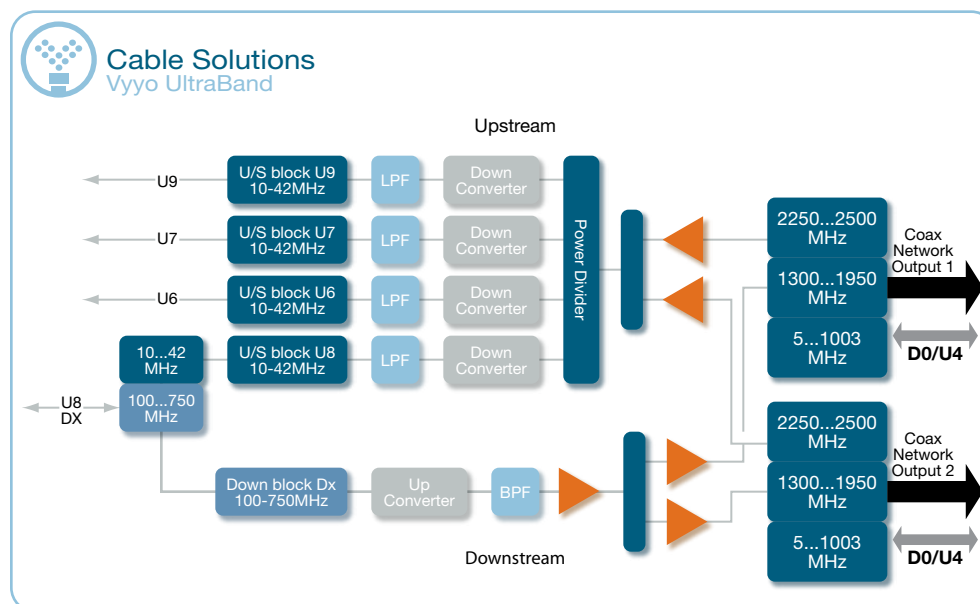
The XHUB3006 employs modular triplex filters to ensure optimal performance within all operating spectral bands. The triplex filter is a passive module designed with excellent group delay, high isolation and low insertion loss for all legacy/Vyvo upstream and downstream bands. An additional benefit of the triplex filter is increased surge protection between the XHUB3006 and the coaxial network.

Get MORE from your NETWORK.



KEY FEATURES

- ▣ Increases downstream network capacity by an additional 650MHz by adding another downstream block.
- ▣ Increases upstream network capacity by providing 4 additional upstream blocks, enabling a total of 5 upstream blocks including the legacy band, adding 130MHz of capacity.
- ▣ 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.
- ▣ Passive transfer of legacy bands featuring fail-safe continuous legacy service.
- ▣ Interfaces with all standard node devices.



XHUB3006

UltraBand Block Multiplexer & Frequency Converter

XHUB3006 Specifications*

Downstream Specifications		
Input	Units	Specs
Input Pass Band	MHz	100-750
Nominal Input Levels	dBmV/6MHz	30
Input Return Loss	dB	-15
Vyvo Band Output		
RF Output Frequency	MHz	1300-1950
Output Level (650MHz noise loading)	dBmV/6MHz	39/46
Output Return Loss	dB	-15
Conversion Gain	dB	16
Gain Slope	dB	0-10max
C/N	dB	60
TGC (Thermal Gain Control)	dB	±1.5
System Pilot ¹	MHz	1910
Upstream Specifications		
Vyvo Band Input		
Input	Units	Specs
Input Frequency	MHz	2250-2500**
Conversion Gain (per upstream channel)	dB	10-25
Nominal Input Level	dBmV/3.2MHz	0
Vyvo Band Output		
Output Frequency	MHz	10-42
Conversion Gain (Per Upstream Channel)	dB	10-25
Maximum Output Level	dBmV/3.2MHz	25
Output IP2 (at 100 channels of 3.2MHz width)	dBm	35
Output Return Loss	dB	-15
Legacy Specifications		
Pass Band Frequency	MHz	5-1003
Insertion Loss at 1003MHz	dB	0.8
Return Loss (At Legacy Ports)	dB	-17
Minimum Isolation Between Legacy Band to Vyvo Band (At 1GHz)	dB	60
Additional Specifications		
Test Points	dB	20±1.0
Hum Modulation at 15A	dBc	70
Power Consumption	W	85
AC Input Voltage	VAC	38-90
AC Current Draw		
@90VAC	A	0.88
@60VAC	A	1.14
Housing Dimensions	(L x D x H) inch/mm	17.7 x 11 x 8.3 470 x 279 x 210
Weight	lbs / Kg	24.8 / 11.25
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.

**An XHUB currently down converts U6, U7, U8, U9 (2250 - 2500). Other versions (up to 2750MHz) may be available. Please contact your Vyvo representative for details.

¹Pilot used for AGC/TGC at Vyvo's downstream.



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

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

XHUB.04.07