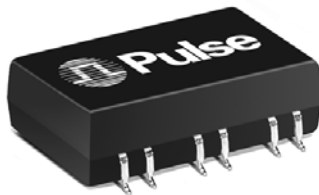


VDSL FILTER SOLUTIONS



- Ⓢ Set of filter modules and hybrid transformers for VDSL
- Ⓢ Digital phone applications
- Ⓢ Matched to Infineon Technologies VDSL solution
- Ⓢ VDSL frequency band: 900 kHz to 8 MHz
- Ⓢ Small size splitter low pass filter: B4031

Electrical Specifications @ 25°C — Operating Temperature -40°C to +85°C

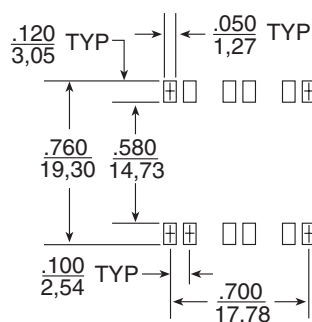
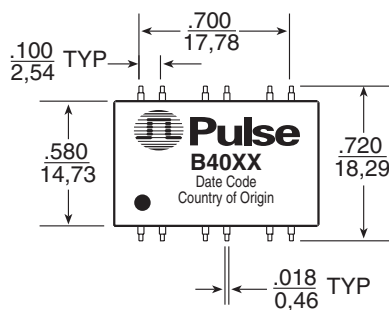
Part No.	Description	Passband Frequency	Insertion Loss (MAX)	Return Loss (MIN)	Stopband Frequency	Attenuation (MIN)	Impedance	
							TX	RX
B4015	Receive HPF - high performance	4.5 MHz to 7.9 MHz	0.8 dB	12 dB	900 kHz to 3.0 MHz	50 dB	—	270 Ω
B4016	Receive LPF - high performance	900 kHz to 3.0 MHz	1.2 dB	12 dB	4.5 MHz to 7.9 MHz	50 dB	—	270 Ω
B4017	Transmit LPF	900 kHz to 3.0 MHz	0.8 dB	10 dB	4.5 MHz to 7.9 MHz	15 dB	40 Ω	—
B4018	Transmit HPF	4.5 MHz to 7.9 MHz	0.8 dB	10 dB	900 kHz to 3.0 MHz	10 dB	40 Ω	—
B4032	Bandpass filter and hybrid transformer	1.0 MHz to 7.9 MHz	0.8 dB	10 dB	10 kHz to 100 kHz	70 dB	40 Ω	270 Ω
		950 kHz to 1.0 MHz	1.5 dB	8 dB	100 kHz to 500 kHz	55 dB	40 Ω	270 Ω
					600 kHz to 700 kHz	15 dB	40 Ω	270 Ω
					20 MHz to 40 MHz	15 dB	40 Ω	270 Ω
B4031	Splitter LPF	10 kHz to 600 kHz	0.8 dB	12 dB	900 kHz to 1.0 MHz	20 dB	150 Ω	150 Ω
		600 kHz to 630 kHz	1.5 dB	10 dB	1.0 MHz to 1.2 MHz	40 dB		
					1.2 MHz to 10 MHz	65 dB		

NOTES:

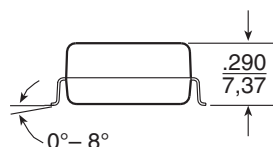
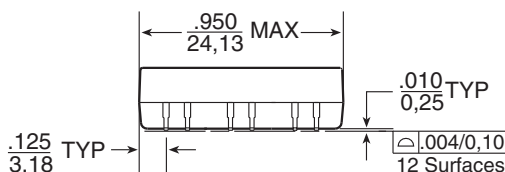
- Transhybrid loss for **B4032** is typically 15 dB, in the 1.0 to 7.9 MHz band and for 120 Ω line impedance.
- B4032** provides 1500 Vrms isolation voltage between pins 1, 2 and pins 9, 10, 15, 16. Common mode pins 7, 8 may be decoupled to ground through a 2 kV capacitor to maintain isolation.
- Return loss for **B4015-B4018** applies to the stopband, not just the passband.
- B4031** is designed to carry loop current of up to 130 mA dc.
- All units use package BAB 2.

Mechanical

BAB 2



SUGGESTED PAD LAYOUT



Weight 7.0 grams
Tape & Reel200/reel
Tube20/tube

Dimensions: $\frac{\text{Inches}}{\text{mm}}$

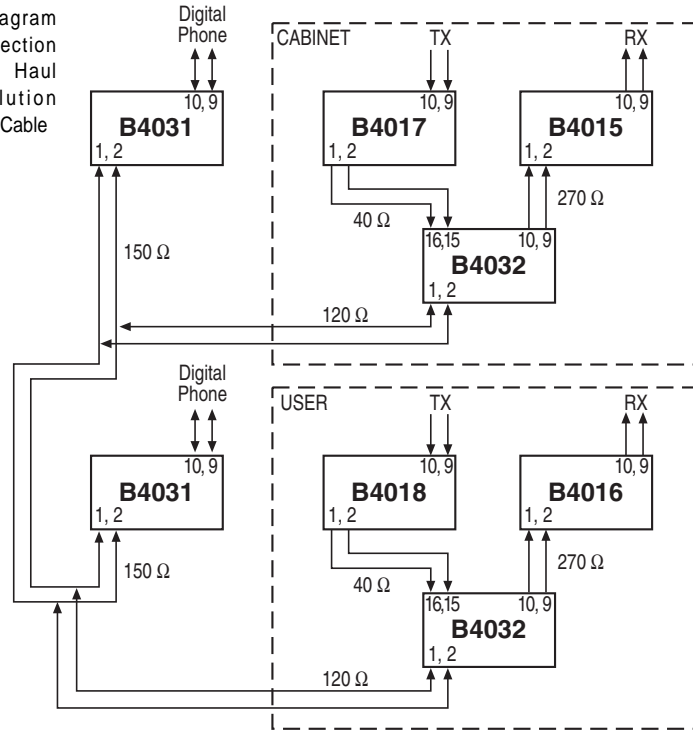
Unless otherwise specified,
all tolerances are $\pm \frac{.010}{0,25}$

VDSL FILTER SOLUTIONS



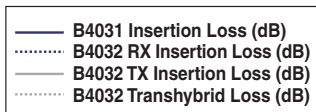
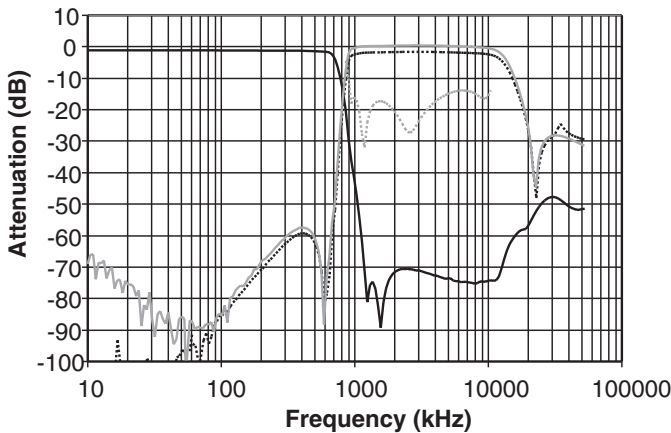
Application Notes

Block Diagram and Connection for Long Haul VDSL Solution over 120 Ω Cable

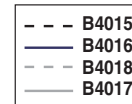
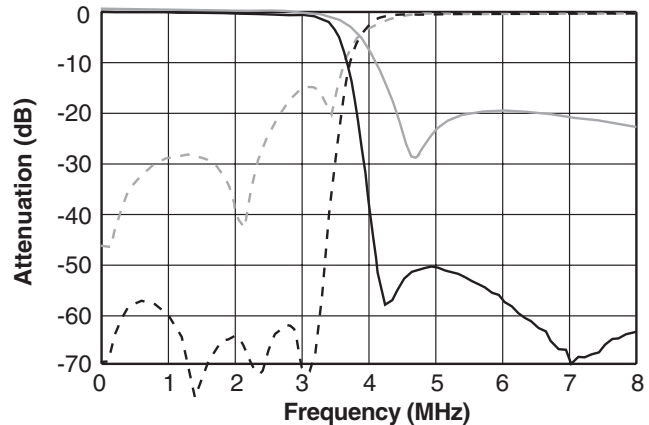


Frequency Response

B4031/32 Insertion Loss



B4015/16/17/18 Frequency Response



For More Information :

UNITED STATES (Worldwide)

12220 World Trade Drive
San Diego, CA 92128
U.S.A.
<http://www.pulseeng.com>
TEL: 858 674 8100
FAX: 858 674 8262

UNITED KINGDOM (Northern Europe)

1 & 2 Huxley Road
The Surrey Research Park
Guildford, Surrey GU2 5RE
United Kingdom
TEL: 44 1483 401700
FAX: 44 1483 401701

FRANCE (Southern Europe)

Zone Industrielle
F-39270
Orgelet
France
TEL: 33 3 84 35 04 04
FAX: 33 3 84 25 46 41

SINGAPORE (Southern Asia)

150 Kampong Ampat
#07-01/02
KA Centre
Singapore 368324
TEL: 65 6287 8998
FAX: 65 6280 0080

TAIWAN, R.O.C. (Northern Asia)

3F-4, No. 81, Sec. 1
HsinTai Wu Road
Hsi-Chih, Taipei Hsien
Taiwan, R.O.C.
Tel: 886 2 2698 0228
FAX: 886 2 2698 0948

HONG KONG (China/Hong Kong)

9/F, Phase 2, Tai Sang
Shatin Warehouse Centre
6 Wong Chuk Yeung Street
Fotan, Shatin, Hong Kong
TEL: 852 2788 6588
FAX: 852 2776 1055

DISTRIBUTOR

Performance warranty of products offered on this data sheet is limited to the parameters specified. Data is subject to change without notice. Other brand and product names mentioned herein may be products and/or registered trademarks of their respective owners.

Printed on recycled paper. ©2003, Pulse Engineering, Inc.

B987.A (11/03)