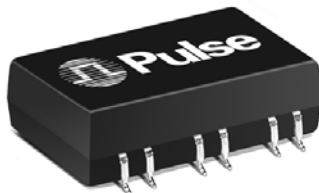


VDSL FILTER SOLUTIONS



- 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

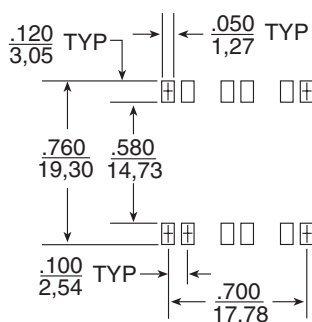
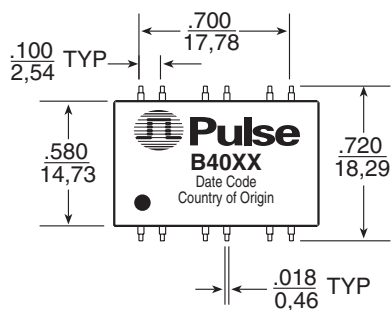
Part No.	Description	Passband Frequency	Insertion Loss (MAX)	Return Loss (MIN)	Stopband Frequency	Attenuation (MIN)	Impedance	
							TX	RX
B4015	Receive HPF - high performance	4.5 MHz to 7.9 MHz	0.8 dB	12 dB	900 kHz to 3.0 MHz	50 dB	—	270 Ω
B4016	Receive LPF - high performance	900 kHz to 3.0 MHz	1.2 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 950 kHz to 1.0 MHz	0.8 dB 1.5 dB	10 dB 8 dB	10 kHz to 100 kHz	70 dB	40 Ω	270 Ω
					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 1.2 MHz to 10 MHz	40 dB 65 dB		

NOTES:

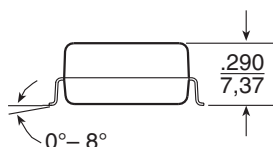
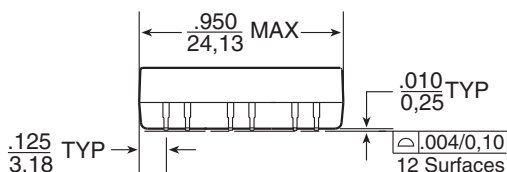
- Transhybrid loss for **B4032** is typically 15 dB, in the 1.0 to 7.9 MHz band and for 120 Ω line impedance.
- B4032** provides 1500 Vrms isolation voltage between pins 1, 2 and pins 9, 10, 15, 16. Common mode pins 7, 8 may be decoupled to ground through a 2 kV capacitor to maintain isolation.
- Return 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 & Reel 200/reel
Tube 20/tube

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

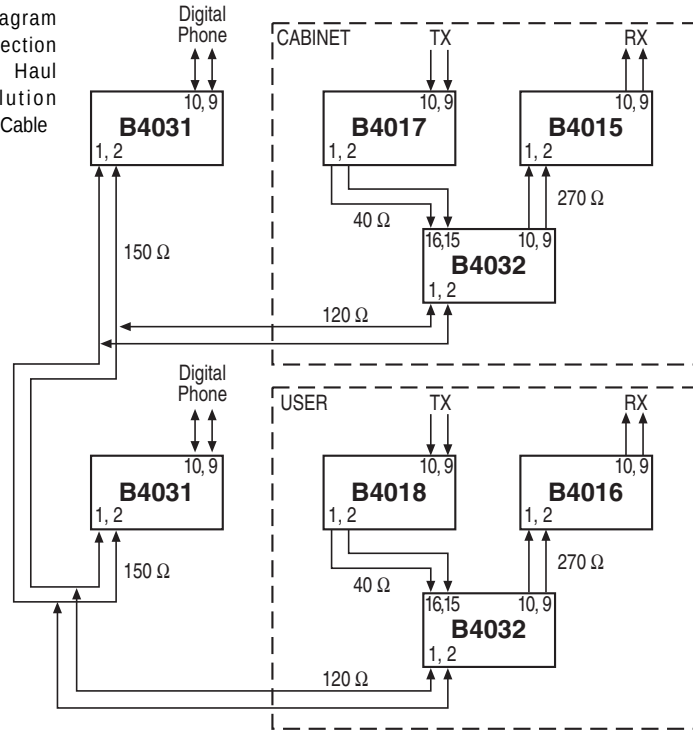
Unless otherwise specified,
all tolerances are $\pm \frac{.010}{0,25}$

VDSL FILTER SOLUTIONS



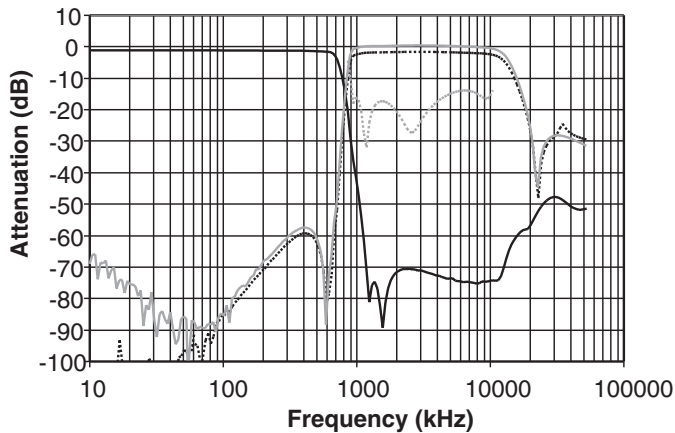
Application Notes

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



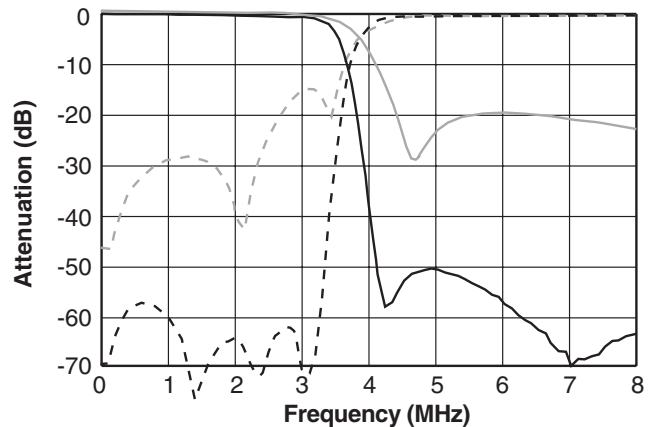
Frequency Response

B4031/32 Insertion Loss



— B4031 Insertion Loss (dB)
 B4032 RX Insertion Loss (dB)
 - - - B4032 TX Insertion Loss (dB)
 - . - . B4032 Transhybrid Loss (dB)

B4015/16/17/18 Frequency Response



- - - B4015
 — B4016
 B4017
 - . - . B4018

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