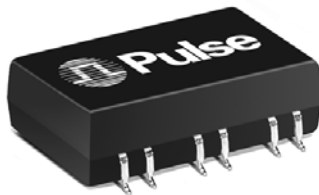


# VDSL FILTER SOLUTIONS



- Ⓢ 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

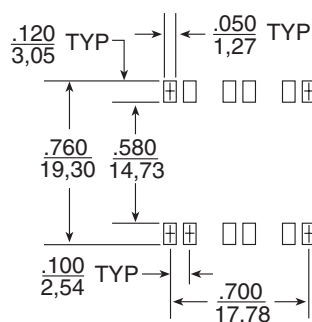
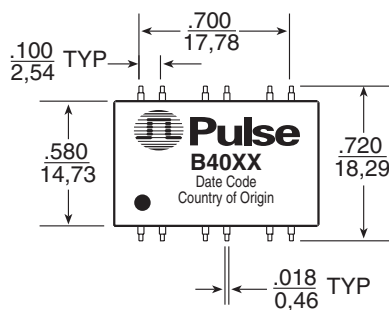
Part No.	Description	Passband Frequency	Insertion Loss (MAX)	Return Loss (MIN)	Stopband Frequency	Attenuation (MIN)	Impedance	
							TX	RX
B4015	Receive HPF - high performance	4.5 MHz to 7.9 MHz	0.8 dB	12 dB	900 kHz to 3.0 MHz	50 dB	—	270 Ω
B4016	Receive LPF - high performance	900 kHz to 3.0 MHz	1.2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

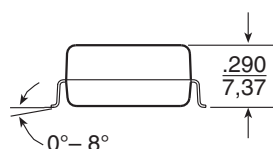
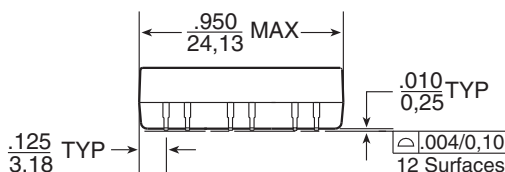


Weight . . . . . 7.0 grams  
Tape & Reel . . . . . .200/reel  
Tube . . . . . .20/tube

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

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

### SUGGESTED PAD LAYOUT

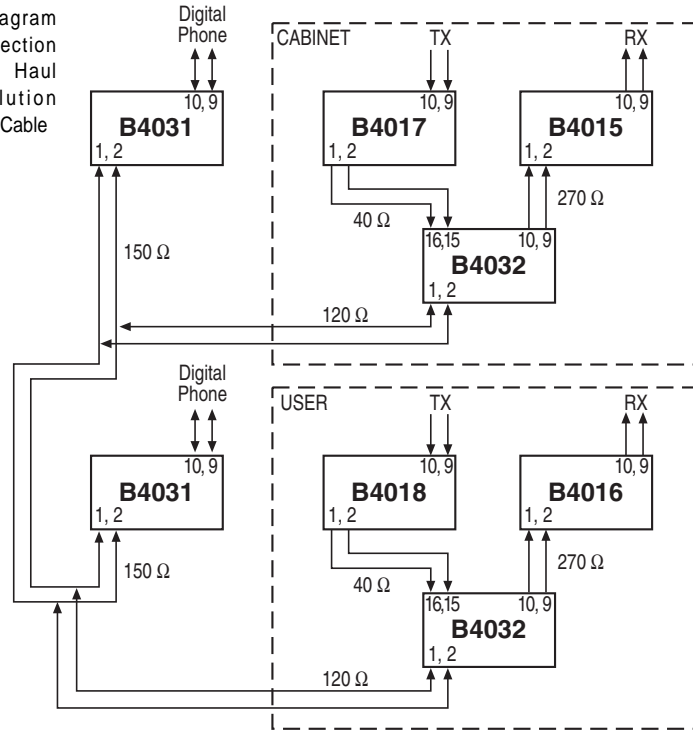


# VDSL FILTER SOLUTIONS



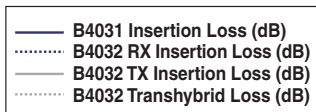
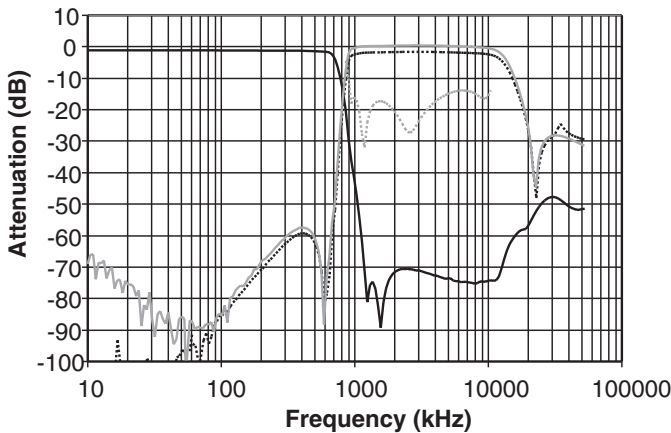
## Application Notes

Block Diagram and Connection for Long Haul VDSL Solution over 120  $\Omega$  Cable

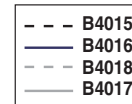
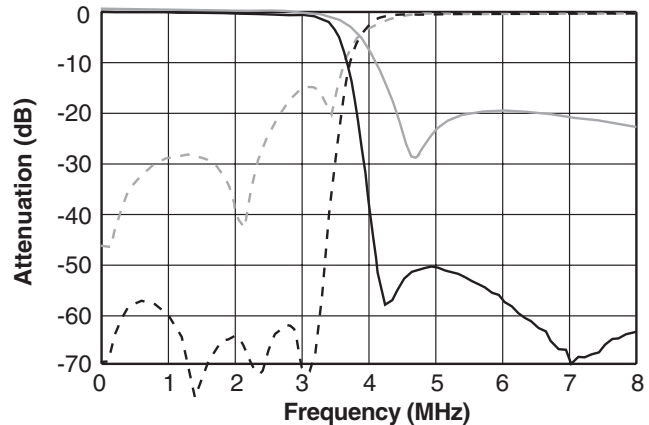


## Frequency Response

B4031/32 Insertion Loss



B4015/16/17/18 Frequency Response



## For More Information :

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