





# HOME PHONE NETWORKING BANDPASS FILTER



-  For use with Broadcom's® iLine 10™ Chipset (BCM4100 and BCM4210)
-  Includes isolation and EMI filtering
-  Designed to withstand 235°C peak infrared reflow temperature
-  B6013 is designed with a 2 kV, 1000 pf capacitor

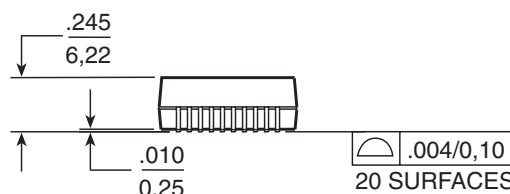
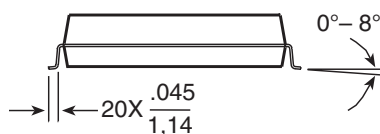
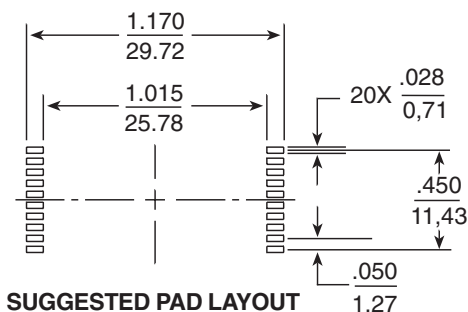
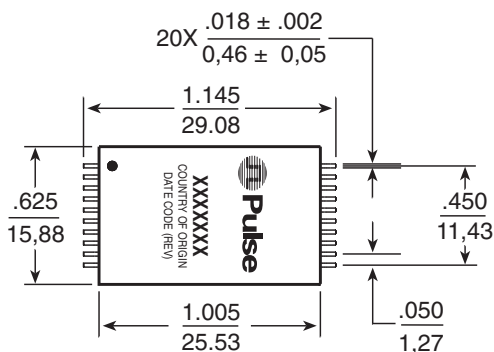
## Electrical Specifications @ 25°C — Operating Temperature 0°C to 70°C

PARAMETER	TEST CONDITION	UNITS	
		MIN	MAX
<b>HomePNA™ V2.0 Insertion Loss</b> (4.25 MHz to 9.75 MHz)	Input (1-3), Output (20-18)	1.0 dB	2.0 dB
<b>HomePNA™ V2.0 Attenuation</b> 1.1 MHz 22 MHz 54 MHz	Input (1-3), Output (20-18)	60 dB 35 dB 50 dB	
<b>HomePNA™ V2.0 Return Loss</b> (6.0 MHz to 9.0 MHz)	Input (20-18), Output (1-3)	12 dB	
<b>HomePNA™ V2.0 Common to Differential Mode Rejection</b> (200 kHz to 22 MHz)	Input (1-3), Output (20-18)	40 dB	
<b>Isolation</b>	Pins (1-3-5-7) shorted to (18-20) shorted	1500 Vrms <sup>1</sup>	
<b>Input Impedance</b>	(see table on page 2)		

**NOTE:** Filters are shipped in tubes unless Tape & Reel is specified. Please add the suffix "R" (for SF5770TR Tape & Reel orders) and the suffix "T" (for B6013T Tape & Reel orders). <sup>1</sup>Compliance with FCC Part 68 metallic and longitudinal voltage surge is provided by an external Teccor P3100SC sidactor across tip and ring.

## Mechanical

### SF5770T/B6013



Weight ..... 4.5 grams  
 Tape & Reel ..... .250/reel  
 Tube ..... .30/tube  
**Dimensions:** Inches  
 mm  
 Unless otherwise specified,  
 all tolerances are ± .010  
 0,25

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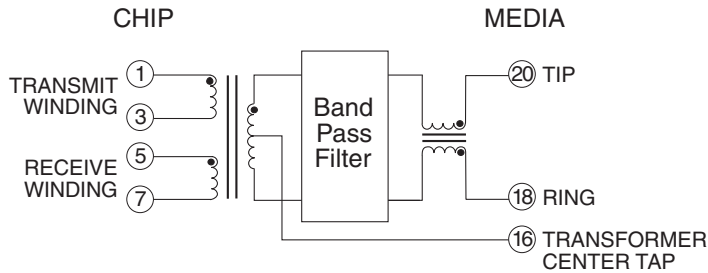


## Schematics

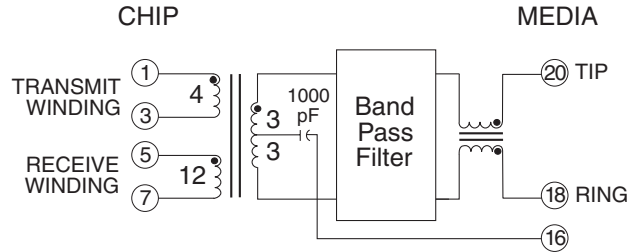
SF5770T

B6013

URNS RATIO: (20-18):(1-3)=1:0.667  
(20-18):(5-7)=1:2



URNS RATIO: (20-18):(1-3)=1:0.667  
(20-18):(5-7)=1:2



**NOTE:** Input impedance is measured across pins 18 to 20 with a 44.2 Ω load across pins 1 and 3. The magnitude of the input impedance shall be >10 Ω from 0-30 MHz and shall conform to the following lower-bound mask:

### Input Impedance

Frequency Range (kHz)	Minimum Impedance (Ω)
0 < f <= 0.285	1 M
0.285 < f <= 2.85	100 K
2.85 < f <= 28.5	10 K
28.5 < f <= 95	4.0 K
95 < f <= 190	2.0 K
190 < f <= 285	1.4 K
285 < f <= 380	1.0 K
380 < f <= 475	850
475 < f <= 570	700
570 < f <= 665	600
665 < f <= 760	525
760 < f <= 855	450
855 < f <= 950	400
950 < f <= 1000	350

Frequency Range (kHz)	Minimum Impedance (Ω)
1000 < f <= 1400	175
1400 < f <= 2300	100
2300 < f <= 2850	50
2850 < f <= 3085	25
3085 < f <= 3725	10
3725 < f <= 3935	25
3935 < f <= 4000	50
10000 < f <= 10450	40
10450 < f <= 10925	25
10925 < f <= 13125	10
13125 < f <= 14175	25
14175 < f <= 16800	50
16800 < f <= 21000	100
21000 < f <= 30000	50

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