

VSAT PLL LNB with TX reject filter



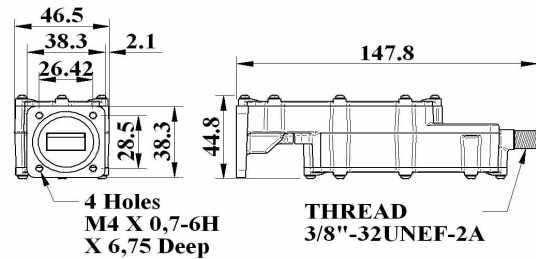
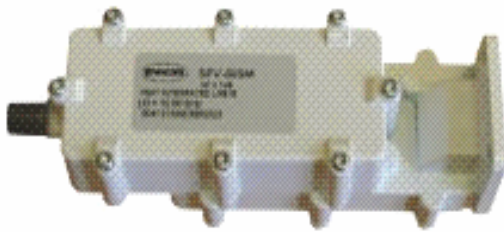
Internal Reference SPV-50SM, SPV-60SM, SPV-70SM

External Reference SPV-55SM, SPV-65SM, SPV-75SM

High Stability

Internal Reference SPV-50HS, SPV-60HS, SPV-70HS

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1	Input Frequency																						
	SPV-50SM	10.95 - 12.15 GHz																					
	SPV-60SM	11.70 - 12.75 GHz																					
	SPV-70SM	12.25 - 12.75 GHz																					
2	Output Frequency																						
	SPV-50SM	950 - 2150 MHz																					
	SPV-60SM	950 - 2000 MHz																					
	SPV-70SM	950 - 1450 MHz																					
3	Noise Figure			0.7 dB typ																			
4	Gain			52 - 65dB																			
5	Gain Ripple																						
	26 MHz bandwidth			<1dB																			
	Full Band			<5dB typ																			
6	Local Oscillator Frequency																						
	SPV-50SM & SPV-55SM	10.00 GHz																					
	SPV-60SM & SPV-65SM	10.75 GHz																					
	SPV-70SM & SPV-75SM	11.30 GHz																					
7	Local Oscillator Phase Noise (typ)																						
	1kHz	-75 dBc/Hz																					
	10kHz	-80 dBc/Hz																					
	100kHz	-110 dBc/Hz																					
8	Local Oscillator temperature stability																						
	(SPV-50/60/70HS)	-40°C to +70°C	+/- 10 KHz																				
	(SPV-50/60/70SM)	-40°C to +70°C	+/- 25 KHz																				
9	External LO reference (SPV-55/65/75SM) via output F connector																						
	Frequency		10 MHz																				
	Level		-10 dBm to +5 dBm																				
10	Image Rejection				40 min dB																		
11	Input power to drive LNB to P1dB point																						
	14GHz			+7 dBm typ																			
	14.5GHz			+20 dBm typ																			
12	Two tone o/p IP3				>15 dBm																		
13	Integrated filter frequency response (typ)																						
	<table border="1"> <caption>Graph Data: Insertion Loss (dB) vs Freq (GHz)</caption> <thead> <tr> <th>Freq (GHz)</th> <th>Insertion Loss (dB)</th> </tr> </thead> <tbody> <tr><td>10.5</td><td>0</td></tr> <tr><td>11.0</td><td>0</td></tr> <tr><td>11.5</td><td>0</td></tr> <tr><td>12.0</td><td>0</td></tr> <tr><td>12.5</td><td>0</td></tr> <tr><td>13.0</td><td>0</td></tr> <tr><td>13.5</td><td>-40</td></tr> <tr><td>14.0</td><td>-100</td></tr> </tbody> </table>					Freq (GHz)	Insertion Loss (dB)	10.5	0	11.0	0	11.5	0	12.0	0	12.5	0	13.0	0	13.5	-40	14.0	-100
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14	Rejection to transmit signal at F-Type from rectangular flange input				100 dB typ																		
15	Output Connector Impedance Return Loss			F -type 75Ω	>10 dB																		
16	Operating Temp Range Storage Temp Range			-40°C to +70°C	-40°C to +70°C																		
17	PSU (applied to F-type)				9 – 21V																		
18	Current consumption				170mA typ																		
19	Waveguide Interface			WG17, R120, WR75, UBR120																			

Patent Pending