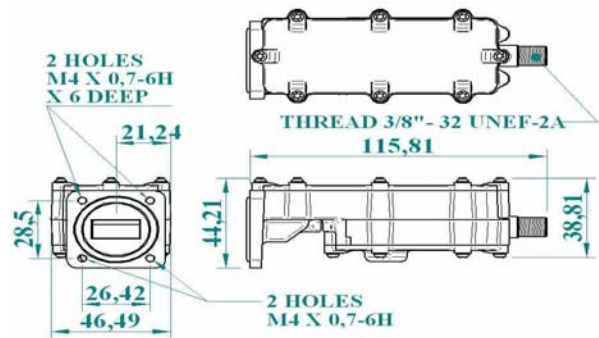




# Dual Oscillator VSAT Integrated LNB and TX Reject Filter

## SPV-30SM, SPV-31SM, SPV-40SM & SPV-41SM

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1	Input Frequency	SPV-30 & 40SM	SPV-31 & 41SM
	Low Band	10.7 - 11.70	10.95-12.15 GHz
	High Band	11.7 - 12.75	12.25-12.75 GHz

2	Output Frequency		
	Low Band	950 - 1950	950-2150 MHz
	High Band	1100 - 2150	950-1450 MHz

3	Local Oscillator Frequency		
	Low	9.75 GHz	10.00 GHz
	High	10.6 GHz	11.30 GHz

LO / Band Select	Tone	Voltage
9.75&10.6 GHz	SPV-30SM	SPV-40SM
10.0 & 11.3 GHz	SPV-31SM	SPV-41SM

4	Noise Figure	0.7 dB typ
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5	Gain	52 - 67dB
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6	Gain Ripple	
	26 MHz bandwidth	<1dB
	Low Band	<5dB typ
	High Band	<5dB typ

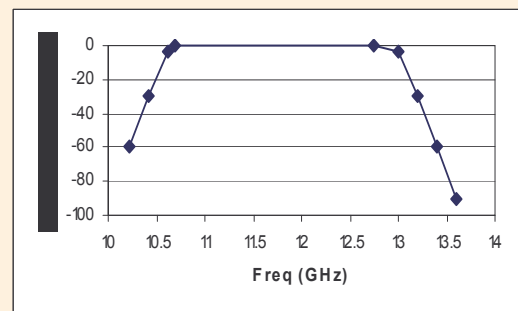
7	Local Oscillator Phase Noise (typ)	
	1kHz	-80 dBc/Hz
	10kHz	-100 dBc/Hz
	100kHz	-115 dBc/Hz

8	Local Oscillator temperature stability	
	-40°C to +70°C	+/-450 KHz

9	Rejection to transmit signal at F-type from rectangular flange input	
		100 dB

10	Image Rejection	80 dB
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### 11 Integrated filter frequency response (typ)



12	Input power to drive LNB to P1dB point	
	14GHz	+7 dBm typ
	14.5GHz	+20 dBm typ

13	Two tone o/p IP3	>15 dBm
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14	Output Connector	F -type
	Return Loss in 75Ω	>10 dB

15	Operating Temp Range	-40°C to +70°C
	Storage Temp Range	-40°C to +70°C

16	PSU (applied to F-type)	8 – 21V
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17	Current consumption	110mA typ, 130mA Max
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18	Band selection – signals applied to F-type	
	SPV-30SM & SPV-31SM	
	High band selection	22kHz tone
	Low band selection	No tone
	SPV-40SM & SPV-41SM	
	Low band Selection	11.5 to 14V
	High band selection	15.5 to 21V

19	Waveguide Interface	WG17, R120, WR75, UBR120
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Patent Pending