



MDF SPLITTER FOR 600 OHMS IMPEDANCE



P/N: DL0001

Specification:

Splitter parameters	Electrical requirements	
	Range	values
<b>General conditions</b>		
Splitter bandwidth		DC to 10 kHz
Nominal voice band		0 Hz to 4 kHz
Ringing frequency		15.3 Hz to 68 Hz
ADSL2+ band		25 kHz to 2208 kHz
POTS line impedance at CO end <b>Z<sub>Tc</sub></b>	0 Hz to 4 kHz	600 ohms
POTS line impedance at Remote end <b>Z<sub>Tr</sub></b>	0 Hz to 4 kHz	600 ohms
Modem impedance	25 kHz to 2208 kHz	100 ohms
<b>Operation voltage voice band</b>		
Nominal signal		21 mVp-p to 5.4 Vp-p
Ringing signal	15.3 Hz to 68 Hz	40 Vrms to 150 Vrms
DC voltage		0 V to -105 V
Max. AC voltage		150 Vrms with -105 VDC offset
Max. differential		320 V
<b>Operation current voice band</b>		
DC Loop current		< 100 mA
On/off hook transient current	400 ms	< 150 mA
<b>DC requirements</b>		
DC series resistance	From tip-to-ring at the POTS interface with the U-R interface shorted.	< 25 ohms



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Isolation resistance to earth	From tip to ground and from ring to ground at the POTS interface with the U-R interface open.	> 10 Mohms
Tip to ring Isolation resistance	From tip to ring at the POTS interface with the U-R interface open.	> 10 Mohms
<b>Voice band loss requirements</b>		
Insertion loss <b>Z<sub>Tc</sub>=600, Z<sub>Tr</sub>=600</b>	@ 1 kHz	< 0.3 dB
	@ 1020 Hz	< 0.3 dB
Attenuation distortion <b>Z<sub>Tc</sub>=600, Z<sub>Tr</sub>=600</b>	0.2 to 4.0 kHz (relative to 1 kHz)	< ± 1.0 dB
Return loss <b>Z<sub>ref</sub>=600</b> <b>Z<sub>term</sub>=600</b>	300 Hz < f < 500 Hz	> 14 + 2 (f <sub>RL</sub> - 3) dB (see *Note)
	500 Hz < f < 2000 Hz	> 18 dB
	2000 Hz < f < 3400 Hz	> 18 - 0.28 (f <sub>RL</sub> - 20) dB (see *Note)
<b>* Note: f<sub>RL</sub> = f (Hz) / 100</b>		
Longitudinal balance	200 Hz to 3.4 kHz	> 58 dB
Delay distortion <b>Z<sub>Tc</sub>=600, Z<sub>Tr</sub>=600</b>	0.6 kHz to 3.2 kHz	< 200 us
	0.2 kHz to 4.0 kHz	< 250 us
Intermodulation distortion products	2 <sup>nd</sup> order	> 57 dB
	3 <sup>rd</sup> order	> 60 dB
Tip to ring capacitance	20 Hz to 30 Hz	20 nF to 115 nF
<b>ADSL2+ band loss requirements</b>		
ADSL2+ band attenuation	25 kHz to 30 kHz	> 55 dB
	30 kHz to 300 kHz	> 65 dB
	300 kHz to 2208 kHz	> 55 dB
ADSL2+ band insertion loss as LPF loading effect	25 kHz to 2208 kHz	< 0.25 dB
ADSL2+ band return loss as LPF loading effect	25 kHz to 2208 kHz	> 14 dB

Mechanical: unit: mm

