

MLE3007RMLE Line Extender Module 5-40/54-750 MHz

Module only specifications unless noted

Standard RF Specifications						
Parameter	Test Conditions		Units	Forward	Reverse	Notes
Pass Band	-		MHz	54-750	5-40	-
Amplifier Type	-		-	GaAsFET PD	Silicon	-
Response Flatness	-		dB	+/-0.75	+/-0.5	1,2
Input Return Loss (75 ohm)	Freq	5-12 MHz	dB	Typical		3
		12-38 MHz		-	-14 (+/-1.0)	
		38-40 MHz			-16	
		54-145 MHz		-16	-	
		145-400 MHz		-14 (+/-1.0)		
		400-750 MHz		-16		
Output Return Loss (75 ohm)	Freq	5-12 MHz	dB	Typical		3
		12-38 MHz		-	-14 (+/-1.0)	
		38-40 MHz			-16	
		54-110 MHz		-16	-	
		110-600 MHz		-13 (+/-1.0)		
		600-750 MHz		-15		
Test Points	-		dB	Input -30 (+/-1.75)	Injection -20 (+/-2.0)	2
				Output -30 (+/-1.25)	Output -20 (+/-1.0)	
Loop Isolation	Freq	40-54 MHz	dB	Better than -30		4
AC Bypass Current (continuous)	-		A	10		-
DC Current Draw (max)	-		mA	775		-

Forward RF Specifications					
Parameter	Test Conditions		Units	Forward	Notes
Minimum Full Gain	-		dB	40	5
Operational Gain	-		dB	39	6
Noise Figure	@ 54 MHz		dB	9.5	7
	@ 750 MHz			8.0	
Hum Modulation @ 10 A	-		dBc	-60	-
Distortion Measurements @ Rated Level					
Reference Frequencies	-		MHz	750 / 650 / 550 / 450 / 54	-
Output Levels	-		dBmV	49.5 / 49 / 47.6 / 46.5 / 41.2	-
Channel Loading	-		NTSC	110	8
Composite Triple Beat	-		dBc	-60	9
Composite Second Order	-		dBc	-69	9
Cross Modulation	-		dBc	-56	9

Return RF Specifications					
Parameter	Test Conditions		Units	Return	Notes
Minimum Full Gain	-		dB	19.5	5
Operational Gain	-		dB	18.5	6
Noise Figure (worst case)	-		dB	9	7
Hum Modulation @ 10A	Freq	5-12 MHz	dBc	-60	-
		12-40 MHz		-65	
Distortion Measurements @ Rated Level					
Reference Frequencies	-		MHz	T7-T12	-
Output Levels	-		dBmV	39 (flat out)	-
Channel Loading	-		NTSC	6	-
Composite Triple Beat	-		dBc	-74	9
Composite Second Order	-		dBc	-89	9
Cross Modulation	-		dBc	-69	9

Notes:

1. Measured with 17.5 dB of simulated cable.
2. Measured using an Input Pad = MPBNP9A-02, Input Equalizer = 6-2E750-12L, Interstage Pad = MPBNP9A-02, Interstage Slope Pad = MPBNP9A-05, Return Roll Corrector = MLE1202RRC, Return Output Pad = MPBNP9A-00, Return Equalizer = 6-2E-0.
3. Measured using an Input Pad = MPBNP9A-02, Input Equalizer = 6-2E-0, Interstage Pad = MPBNP9A-02, Interstage Slope Pad = MPBNP9A-05, Return Roll Corrector = MLE1202RRC, Return Output Pad = MPBNP9A-00, Return Equalizer = 6-2E-0.
4. Measured using 0 dB plug-ins for forward and return locations and an Interstage Slope Pad = MPBNP9A-05.
5. Measured with 6 dB of simulated cable using an Input Pad = MPBNP9A-00, Input Equalizer = 6-2E-0, Interstage Pad = MPBNP9A-00, Interstage Slope Pad = MPBNP9A-05, Return Roll Corrector = MLE1202RRC, Return Output Pad = MPBNP9A-00, Return Equalizer = 6-2E-0.
6. Includes 1 dB loss from the input EQ and 1 dB loss from the return EQ.
7. Measured using an Input Pad = MPBNP9A-00, Input Equalizer = 6-2E-0, Interstage Pad = MPBNP9A-02, Interstage Slope Pad = MPBNP9A-05, Return Roll Corrector = MLE1202RRC, Return Output Pad = MPBNP9A-00, Return Equalizer = 6-2E-0.
8. Distortions with 110 NTSC analog channels (no digital).
9. Measured using an Input Pad = MPBNP9A-02, Input Equalizer = 6-2E750-05L, Interstage Pad = MPBNP9A-02, Interstage Slope Pad = MPBNP9A-05, Return Roll Corrector = MLE1202RRC, Return Output Pad = MPBNP9A-00, Return Equalizer = 6-2E-0.

Accessories	
Factory Installed Plug-ins	Plug-in Series
Diplex Filters (not accessible thru the cover, field upgradeable)	MLE300XDF
Interstage Pad = 18 AWG buss wire jumper	MPBNP9A
Interstage Slope Pad = MPBNP9A-05	MPBNP9A
Return Roll Corrector (field upgradeable) * Note: Only remove if changing the frequency split of the diplex filters.	MLE1202RRC
AC Power Pass Jumpers (In/Out)	CJT002
AC Voltage Range Select Jumper	CJT001
Required Plug-ins	Plug-in Series
Input Pad	MPBNP9A
Input Equalizer	6-2E750-L
Return Output Pad	MPBNP9A
Return Equalizer	MPBN6REF42
Optional Plug-ins	Plug-in Series
Thermal Pad (Interstage Slope Pad location)	-
Plug-in diplex filter options include 40/51, 42/54, 55/70, 65/86 and 85/105 MHz.	-

Line Extender Housing Upgrade Instructions		
Original LE Housing Specifications		
Housing Part Number	Frequency Range	Side-mounted Housing Test Points
5-LH	5-450 MHz	Yes
Upgrade Instructions:		
<ol style="list-style-type: none"> 1. Always replace the LE housing input seizure assembly with part number 0910693-801. 2. Always replace the LE housing output seizure assembly with part number 0910694-801. 		
Housing Part Number	Frequency Range	Side-mounted Housing Test Points
7-LH	5-870 MHz	No
7-LH/TP	5-870 MHz	Yes
9-LH	5-1000 MHz	No
Upgrade Instructions: Nothing needs to be done.		
Upgraded LE Housing Specifications		
Housing Part Number	Frequency Range	Side-mounted Housing Test Points
5-LH	5-1000 MHz	No