

MLE300SAT-4** .25 High Gain Dual Amplifier 5-40/54-1002 MHz

Module only specifications unless noted

Standard RF Specifications				
Parameter	Units	Forward	Reverse	Notes
Pass Band	MHz	54-1002	5-40	
Amplifier Type	-	GaAsFET PD	Silicon	
Flatness	dB	+/-0.75	+/-0.5	1,2
Minimum Full Gain (AGC mode) Main and Aux 1 Ports Aux 2 Port	dB	48.1	18.7 21.7	2
Operational Gain (MGC mode) Main and Aux 1 Ports Aux 2 Port	dB	44	17.7 20.7	3,4
Operational gain must not exceed 44 dB. Use Interstage and/or Output padding as necessary.				
AGC Range @ 1002 MHz	dB	+3.1/-4.0	-	
Return Loss (typical)	dB	-16	-16	5
Noise Figure	dB	6.5	12.5	6
Test Points	dB	-30 (+/-1.0)	-30 (+/-1.0)	5
		Status Monitor -30 (+/-1.5)		
Loop Isolation (40-54 MHz)	dB	Better than -35		6
Hum Modulation @ 15 A	dBc	-60 (54-870 MHz) -58 (870-1002 MHz)	-60 (5-12 MHz) -65 (12-40 MHz)	
AC Bypass Current (continuous)	A	15		
DC Current Draw (maximum)	A	1.64		
Distortion Measurements @ Rated Level				
Reference Frequencies	MHz	1002 / 870 / 750 / 550 / 54	T7-T12	
Output Levels	dBmV	49.5 / 49.1 / 47.5 / 45.5 / 37	35 (flat out)	
Channel Loading	NTSC	130	6	7
CTB	dBc	-63	-90	2
CSO (high side)	dBc	-74	-85	2
Cross Modulation	dBc	-60	-78	2,8

Notes:

1. Measured with 17 dB of simulated cable.
2. Measured using an Interstage EQ = MFA140-0, Interstage Pad = MP030-0, Main Output Pad = MP030-0, Aux 1/2 Output Pad = MP040-0, and 0 dB plug-ins for all remaining forward and return locations.
3. Includes a 1 dB loss from the Input EQ and a 1 dB loss from the Return EQ.
4. When in MGC Mode, ensure there is at least 3.1 dB of reserved gain.
5. Measured using an Input EQ = MFA150-0, Interstage EQ = MFA140-0, Interstage Pad = MP030-0, Main Output Pad = MP030-0, Aux 1/2 Output Pad = MP040-0, and 0 dB plug-ins for all remaining forward and return locations.
6. Measured using an Interstage Pad = MP030-0, Main Output Pad = MP030-0, Aux 1/2 Output Pad = MP040-0, and 0 dB plug-ins for all remaining forward and return locations.
7. Distortions in MGC mode with 130 NTSC analog channels (no digital).
8. X-mod (@ 15.75 KHz) specified using 100% synchronous modulation.

Accessories	
Factory Installed Plug-ins	Plug-in Series
Diplex Filters (not accessible thru the cover, field upgradeable)	MLE300XDF-01
Forward Roll Corrector (not accessible thru the cover, field upgradeable)	MLE1202FRC
Response EQ (Debumper) = 18 AWG buss wire jumper	6EDB
Interstage EQ = MFA140-0	MFA***-0
AGC/MGC Module (available pilot frequencies: 427.25 and 499.25 MHz)	MAA4**25R
Interstage Pad = MP030-0	MP***-0
Main Output Pad = MP030-0	MP***-0
Aux 1/2 Output Pad = MP040-0	MP***-0
Aux 1/2 Signal Director = MP000-0	MP***-0
Main, Aux 1, and Aux 2 Return Input Pads = MP000-0	MP***-0
Return Roll Corrector (not accessible thru the cover, field upgradeable)	MLE1202RRC
Low Pass Filter (not accessible thru the cover, field upgradeable)	MLERF100104
Fuse 1, Fuse 2, Fuse 3, Fuse 4 = 25 Amp Auto Fuse (not accessible thru the cover)	0189940-25
230 V AC Crowbar Surge Protector	MLE300SATCB
Required Plug-ins	Plug-in Series
Input Pad	MP***-0
Input Equalizer	MFA***-0
Return Output Pad	MP***-0
Return Equalizer	MRN***-0
Optional Plug-ins	Plug-in Series
Plug-in Pads for the AGC/MGC Module	MGIP-*
2-Way Splitter	0911055-801
DC-8 Directional Coupler	2501158
DC-12 Directional Coupler	2501159
Plug-in diplex filter options include 40/51, 42/54, 55/70, 65/86 and 85/105 MHz.	-

System Amplifier Housing Upgrade Instructions	
Original System Amplifier Housing Specifications	
Type of Housing	Amp Capacity
SA II, SA II+	10 Amps
Upgrade Instructions:	
<ol style="list-style-type: none"> If the current seizure screws and anvils are "blue" in color, the System Amplifier housing has already been upgraded and nothing needs to be done. If the current seizure screws and anvils are not "blue" in color, replace the seizure screws and anvils with SA part number 548775. 	
Type of Housing	Amp Capacity
SA III	15 Amps
Upgrade Instructions: Nothing needs to be done.	
Upgraded System Amplifier Housing Specifications	
Type of Housing	Amp Capacity
SA II, SA II+	15 Amps

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