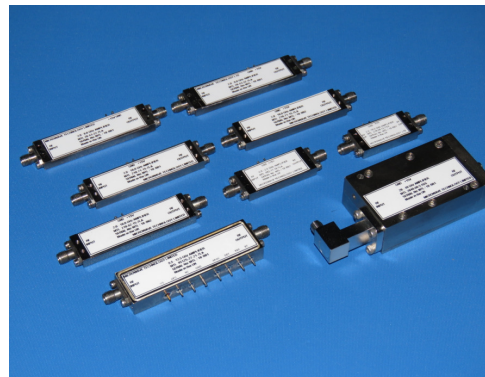


PHASE and OUTPUT POWER ADJUSTABLE AMPLIFIER



The MTL-95125-27-21-7LA is a broadband solid state amplifier which operates over the frequency range 9.5 to 12.5 GHz. The amplifier is offered in a low profile mechanical housing which incorporates integral DC regulation and employs GaAs PHEMT devices. The amplifier provides adjustment for phase over 0 to 360 degrees and saturated output power over a range of 10 B. The amplifier incorporates integral diode detectors and bias tee. The amplifier is designed and manufactured for high reliability and consistent unit to unit performance.

Electrical specification specified at 25°C case temperature

SPECIFICATION	MINIMUM	TYPICAL	MAXIMUM	UNITS
Frequency	9.5		12.5	GHz
Small Signal Gain	27			dB
Maximum Output Power Level at Minimum Control Voltage Setting	21.5			dBm
Output Power Level Adjustment Range	10			dB
Control Voltage Range for Output Power Control (APAC)	0		1	V
Input Current on Output Power Control Pin (APAC)			5	mA
Input Return Loss			-10	dB
Output Return Loss			-10	dB
Noise Figure (@ +25 degC)			7.0	dB
Input Voltage for Maximum Analog Phase Shift Control (APC)			-13	V

Input Voltage for Minimum Analog Phase Shift Control (APC)	0			V
Analog Phase Control Range			360	DEG
Phase Variation at Phase Setting			10	DEG
Reference Detector Output (REF) with or without Signal Input @ 25 °C	350		500	mV
Detector Output (DET) with no Signal Input @ 25 °C	350		500	mV
(REF)-(DET) Voltage with no Signal Input @ 25 °C	100			mV
(REF)-(DET) Voltage @ Maximum Output Power Level @ 25 °C			20	mV
Positive Supply Voltage	+12		+15	V
Positive Supply Current			350	mA
Output Bias Tee (BT)	-12		0	V

(Specification subject to changes without notice)

Absolute Maximum Ratings

Parameter	Value/Type	Units
Input DC voltage	20	V
RF Input power	+5	dBm
Operating temperature	-40 to +85	°C
Storage temperature	-55 to +95	°C

Mechanical Specifications

Parameter	Value/Type	Units	Limits
Dimensions –excluding RF connectors and heat sink	70(L) x 21(W) x 9(H)	mm	
Weight	20	Grams	Max
RF Connectors Input/Output	SMA		
DC connector	Solder in Filter		
Cooling	External Heat Sink Required		