

SPECIFICATION

PA3-1FE



The model PA3-1FE is a mobile VHF High-Band RF Power Amplifier with a solid state antenna switch relay intended for use in mobile applications. It is designed to be installed in the interior of a vehicle.

ELECTRICAL SPECIFICATIONS @ $V_{DD} = 13.8$ VDC Nom., $T_A = +25^\circ$ C

Parameter	Symbol	Min	Typ	Max	Unit	Condition
Frequency Range	BW	136		174	MHz	
Operating bandwidth within range	OBW			38	MHz	
Input Power	P_{IN}	10		50	Watt	
Output Power	P_{OUT}	40	125	130	Watt	
Output Flatness	ΔP_{OUT}			± 0.5	dB	
Duty Cycle	D			40	%	per EIA/TIA-603-C
Harmonic Emissions	Har		-70	-65	dBc	$P_{OUT} = 125$ W
Spurious Emissions	Spur		-80	-75	dBc	$P_{OUT} = 125$ W
Operating Voltage	V_{DD}	11	13.8	15	Volt	
Supply Current	I_{DD}		14		Amp	$P_{OUT} = 125$ W
Input VSWR	S11		1.3:1	2:1	VSWR	
Operating Mode	Mode		FM/CW			
Input/Output Impedance	Z_{IN} / Z_{OUT}		50		Ω	
Receive Path Insertion Loss	IL		0.5	1	dB	
SSR Attack Time	t_{ATK}		100	250	μ S	

ENVIRONMENTAL CHARACTERISTICS

Parameter	Symbol	Min	Typ	Max	Unit	Condition
Operating Temperature	T_O	-20		+50	$^\circ$ C	
Storage Temperature	T_S	-40		+85	$^\circ$ C	
Operating Humidity	H_O	0		85	%	relative, non-condensing
Storage Humidity	H_S	0		95	%	relative, non-condensing

MECHANICAL PROPERTIES

Parameter	Value	Units	Limits	Condition
Dimensions	11.6 L x 3.0 H x 5.5 W	inch	max	
Weight	5	lb	max	
RF Connectors, In/Out	UHF (SO-239)			Type N optional
DC Connector	Cinch 4-pin male			
Cooling	Convection			