



MA1078-2

For DCS1800 - 20W Power Amplifier

MA1078-2

DESCRIPTION

The MA1078-2 is a 20W power amplifier designed for DCS 1800, which comprises 4 stages GaAs FET and 2 stages Si bipolar transistors, also RF power monitoring circuit.

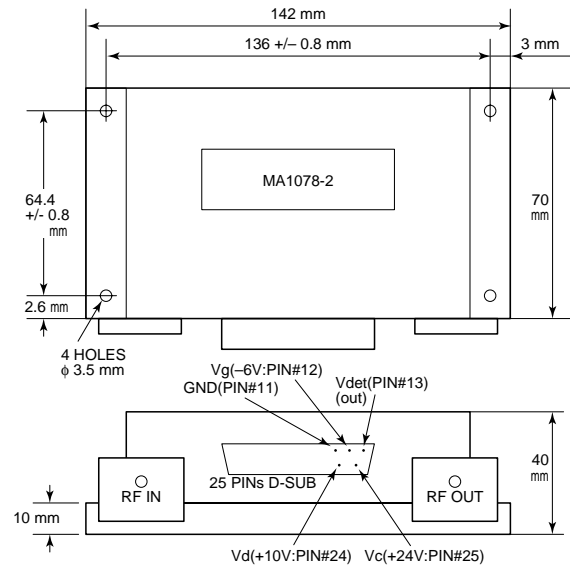
FEATURES

- Specified +25/+10 Volt Characteristics
 - RF Output Power : +43 dBm (typ.)
 - Harmonics : -65 dBc typ.
- Small Size : 70 × 142 × 40 mm³
- 50 Ohm Input/Output Impedances

APPLICATION

- DCS 1800 (1805 ~ 1880 MHz)
Base station

OUTLINE DRAWING



2. Electrical Performances (Tc = +25°C, Vc = +24V, Vd = +10V, Vg = -6V, Zg = Zl = 50Ω)

No.	Items	Symbol	Condition	Standard			Unit
				Min	Type	Max	
1	Frequency	f		1805	---	1880	MHz
2	Output Power	P _{out}		+43	---	---	dBm
3	Output RF modulation spectrum ; from the carrier	----	P _{out} = +43 dBm (P _{in} control)	----	----	+	dB
	100 KHz			----	----	-0.5	dB
	200 KHz			----	----	-30	dB
	250 KHz			----	----	-33	dB
	400 KHz			----	----	-60	dB
	600 KHz			----	----	-70	dB
	to < 1200 KHz			----	----	----	dB
	1200 KHz			----	----	-73	dB
	to < 1800 KHz			----	----	----	dB
	1800 KHz			----	----	-75	dB
	to < 6000 KHz			----	----	----	dB
	≤ 6000 KHz			----	----	-80	dB
4	Spurious ; in-band out-band			----	----	-36	dBm
				----	----	-30	dBm
5	Harmonics	2fo 3fo 4fo	P _{out} = +43 dBm	----	-60	----	dBc
				----	-65	----	dBc
				----	-70	----	dBc
6	Quiescent current	I _{cq}	P _{in} = 0mW	----	----	1.5	A

Amplifier Specifications (MA1078-2)

1. Maximum Ratings

No.	Items	Symbol	Condition	Standard	Unit
1	Case temperature	T _c		-40 ~ +70	°C
2	Storage temperature	T _{stg}		-40 ~ +80	°C
3	Collector Voltage	V _c		+26.0	V
4	Drain Voltage	V _d	V _g = -6V	+11.5	V
5	Gate Voltage	V _g	V _d = +10V	-10.0	V
6	RF Input Power	P _{in}		-11.0	dBm