



MA1100-1

For DCS1800 - 30W Power Amplifier

MA1100-1

DESCRIPTION

The MA1100-1 is a 30W power amplifier designed for DCS 1800, which comprises 4 stages GaAs FET and 2 stages Si bipolar transistors, also RF power monitoring circuit.

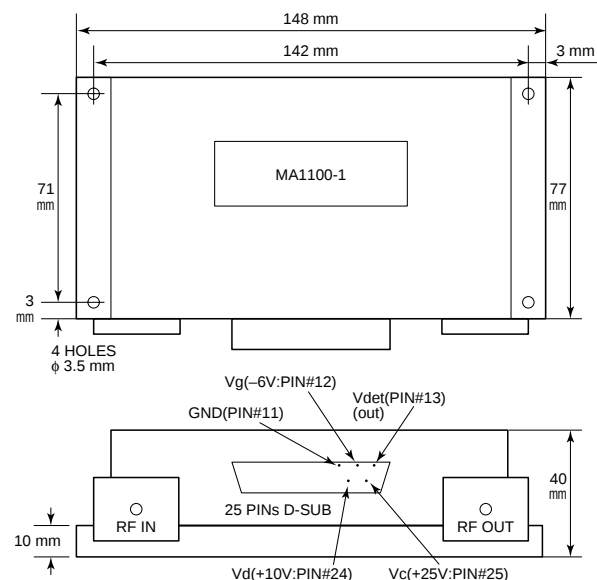
FEATURES

- Specified +25/+10 Volt Characteristics
 - RF Output Power : +45 dBm (typ.)
 - Harmonics : -65 dBc typ.
- Small Size : $77 \times 148 \times 40$ mm³
- 50 Ohm Input/Output Impedances

APPLICATION

- DCS 1800 (1805 ~ 1880 MHz)
Base station

OUTLINE DRAWING



2. Electrical Performances (Tc = +25°C, Vc = +25V, 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}		+45	---	---	dBm
3	Output RF modulation spectrum ; from the carrier	---	P _{out} = +45 dBm (P _{in} control)				
	100 KHz			---	---	+0.5	dB
	200 KHz			---	---	-30	dB
	250 KHz			---	---	-33	dB
	400 KHz			---	---	-60	dB
	600 KHz			---	---	-70	dB
	to < 1200 KHz						
	1200 KHz			---	---	-73	dB
	to < 1800 KHz						
	1800 KHz			---	---	-75	dB
	to < 6000 KHz						
	≥ 6000 KHz			---	---	-80	dB
4	Spurious ; in-band out-band			---	---	-36 -30	dBm dBm
5	Harmonics	2fo 3fo 4fo	P _{out} = +45 dBm	---	-60 -65 -70	---	dBc dBc dBc
6	Quiescent current	I _{cq}	P _{in} = 0mW	---	---	1.5	A

Amplifier Specifications (MA1100-1)

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}		-9.0	dBm