

UPC2712

DESCRIPTION

Silicon Monolithic Microwave Integrated Circuit (MMIC) wideband amplifier with internal matching circuit in a 6-pin SOT363 SMD plastic package.

FEATURES

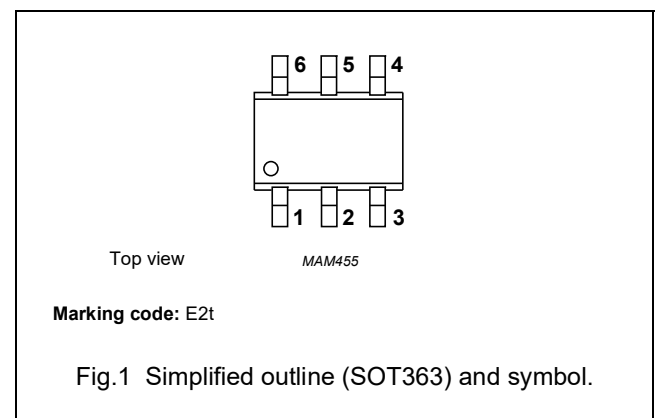
- $V_{cc}=5V$, $P_{in}=-30dBm$

APPLICATIONS

- LNB IF amplifiers
- Cable systems
- ISM
- General purpose.

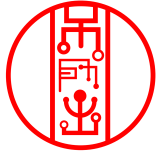
PINNING

PIN	DESCRIPTION
1	VDD
2	GND
3	OUT
4	GND2
5	GND1
6	IN



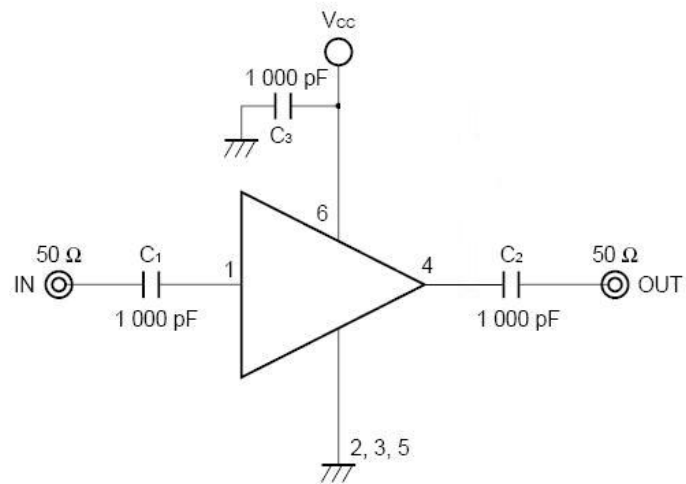
ELECTRICAL CHARACTERISTICS

SYMBOL	PARAMETER	CONDITIONS	TYP.	UNIT
V_S	DC supply voltage		5	V
I_S	DC supply current		10.7	mA
$ s_{21} ^2$	insertion power gain	$f = 1 \text{ GHz}$	22.5	dB
			22.4	dB
NF	noise figure	$f = 1 \text{ GHz}$	3.2	dB
$P_{L(sat)}$	saturated load power	$f = 1 \text{ GHz}$	5.6	dBm
P_{L1dB}	load power	$f = 1 \text{ GHz}$	1.4	dBm
$R_{L IN}$	return losses input	$f = 1 \text{ GHz}$	15.4	dB
$R_{L OUT}$	return losses output	$f = 1 \text{ GHz}$	15.6	dB
$ s_{12} ^2$	isolation	$f = 1 \text{ GHz}$	40.5	dB
R	V_i/V_o Port impedance		50	ohm



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APPLICATION CIRCUIT

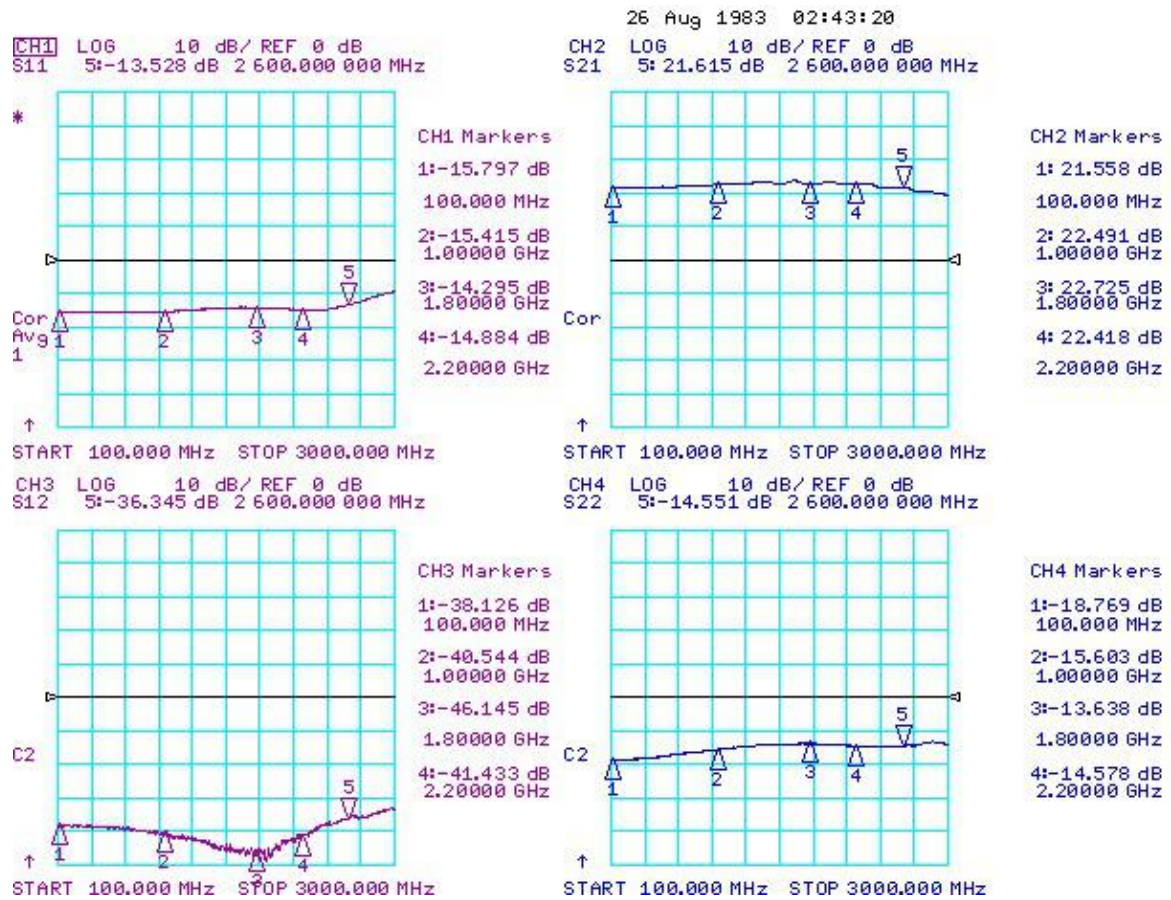


Components of test circuit for measuring electrical characteristics

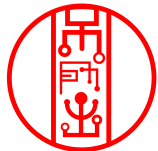
	TYPE	VALUE
C ₃	Capacitor	1 000 pF
C ₁ to C ₂	Bias Tee	1 000 pF



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S Test parameters

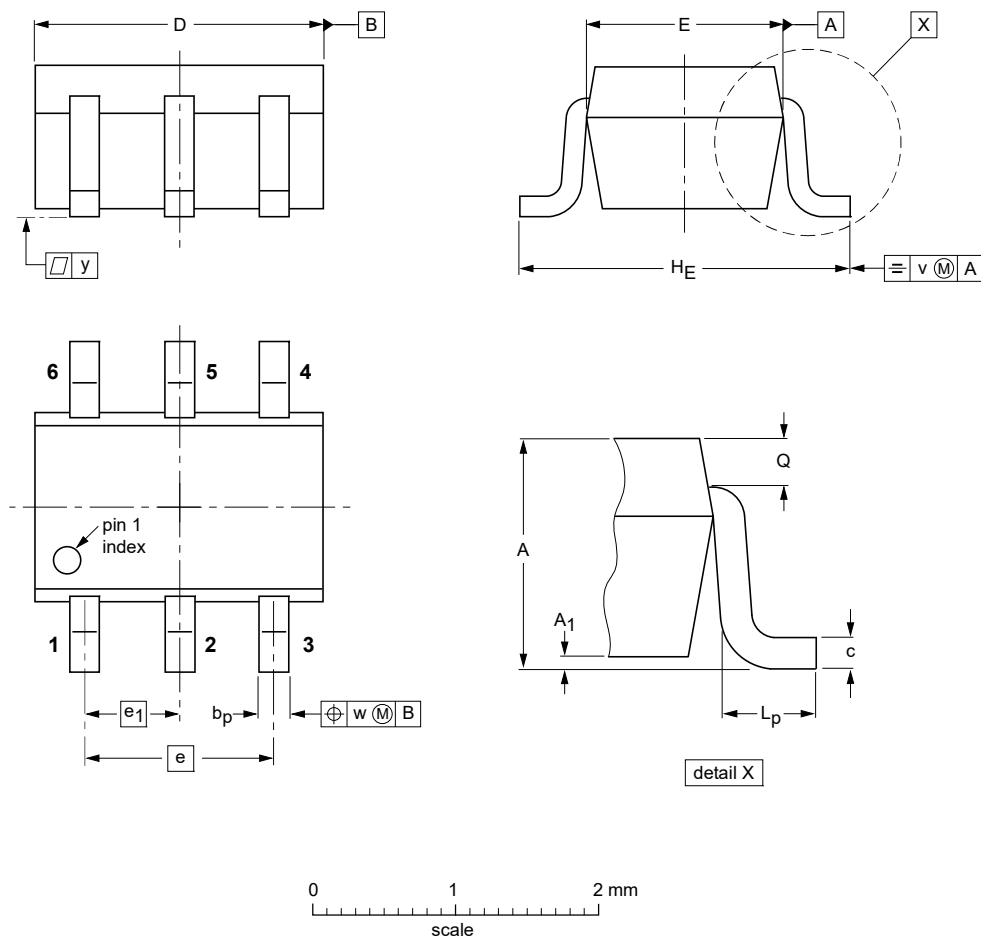


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PACKAGE OUTLINE

Plastic surface-mounted package; 6 leads

SOT363



DIMENSIONS (mm are the original dimensions)

UNIT	A	A ₁ max	b _p	c	D	E	e	e ₁	H _E	L _p	Q	v	w	y
mm	1.1 0.8	0.1	0.30 0.20	0.25 0.10	2.2 1.8	1.35 1.15	1.3	0.65	2.2 2.0	0.45 0.15	0.25 0.15	0.2	0.2	0.1