

GaAs Amplifiers

T-74-09-01

**Available in 4 Pin TO-8, Flatpacks,
Surface Mount Packages and Connectorized Housings**

B-74-09-51

(Listed by increasing Frequency, Noise Figure, and Power)

Model No.	Freq. Range (MHz)	Gain (dB)		Noise Figure (dB)		Power Output (dBm)		Third Order Intercept Point Typ (dBm)	VSWR MAX In/Out	Power Typ	
		Typ	Min	Typ	Max	Typ	Min			Vdc	mA
*TM9702	500-1500	12.0	10.5	2.8	4.0	+19.8	+19.0	+32	2.0:1	+ 8	107
*TM9701	200-2000	12.0	11.0	3.0	4.0	+14.0	+13.0	+26	2.0:1	+ 5	48
*TM9700	200-2000	12.0	9.5	2.2	4.0	+17.5	+15.5	+29	2.2:1	+ 6	70
*TM9713	500-2000	11.0	8.5	4.5	6.0	+22.0	+18.0	+33	2.0:1	+ 15	120
*TM9725	500-2000	11.0	9.0	4.5	6.0	+26.5	+26.0	+37	2.0:1	+ 15	190

*New Product

General Application Amplifiers

**Available in 4 Pin TO-8, Flatpacks,
Surface Mount Packages and Connectorized Housings**

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		Typ	Min	Typ	Max	Typ	Min			Vdc	mA
TZ9206	5-200	23.0	22.0	3.0	3.5	+ 7.7	+ 7.0	+17	2.0:1	+15	37
TZ9203	5-200	31.0	30.0	3.0	3.5	+ 7.7	+ 7.0	+17	2.0:1	+15	35
TZ9209	5-200	30.5	30.0	3.0	3.5	+ 7.7	+ 7.0	+21	2.0:1	+12	36
TZ9212	0.1-200	31.0	30.0	3.0	3.5	+ 7.7	+ 7.0	+17	2.0:1	+15	35
TZ9204	5-200	20.5	20.0	5.2	6.0	+ 5.8	+ 5.0	+16	2.0:1	+15	37
TZ9201	5-200	29.0	27.0	4.8	6.0	+ 7.7	+ 7.0	+17	2.0:1	+15	35
TZ9207	5-200	29.0	27.0	4.8	6.0	+ 7.7	+ 7.0	+17	2.0:1	+12	35
TZ9210	0.1-200	29.0	27.0	4.8	6.0	+ 7.7	+ 7.0	+17	2.0:1	+15	35
TZ9205	5-200	20.5	20.0	5.2	6.0	+14.4	+13.0	+27	2.0:1	+15	90
TZ9202	5-200	27.5	26.0	5.2	6.0	+15.5	+15.0	+26	2.0:1	+15	90
TZ9208	5-200	27.5	26.0	5.2	6.0	+15.5	+15.0	+26	2.0:1	+12	90
TZ9211	0.1-200	27.5	26.0	5.2	6.0	+15.5	+15.0	+26	2.0:1	+15	90
TZ9216	5-200	12.5	11.0	5.5	7.0	+15.5	+13.5	+30	2.0:1	+15	50
TZ9214	5-200	13.5	13.0	6.7	8.5	+21.0	+20.0	+34	2.0:1	+15	90
TZ9401	5-400	14.5	13.0	4.4	5.0	- 1.0	- 3.0	+ 8	2.0:1	+15	10
TZ9402	5-400	14.5	13.0	4.8	5.5	+ 7.0	+ 6.0	+18	2.0:1	+15	24
TZ9405	5-400	13.0	12.0	4.8	5.5	+20.0	+19.0	+30	2.0:1	+15	75
TZ9411	5-400	15.0	13.0	4.5	6.0	- 1.0	- 4.0	+12	2.0:1	+12	12
TZ9408	5-400	28.0	26.0	4.5	6.0	+10.4	+ 9.5	+24	2.0:1	+15	45
TZ9409	5-400	12.5	9.0	5.5	6.0	+15.0	+13.0	+30	2.0:1	+15	50
TZ9403	5-400	10.5	9.0	7.5	8.0	+15.0	+14.0	+26	2.0:1	+24	65
TZ9404	5-400	10.5	9.0	7.5	8.0	+15.0	+14.0	+26	2.0:1	+15	65
TZ9601	10-1000	15.5	15.0	6.0	6.5	+ 5.0	+ 4.0	+11	2.0:1	+15	35

Outline Drawings

All unmarked Pins are internally grounded.

7-70-20

T2 (TO-5 Package)

BASE IS GLASS

PINS ED. SPACED ON 0.230 DIA RC LOCATED AS SHOWN

Model No.	Pin 1	Pin 2	A	B	Control	-Y	CTL
TWR2213	2	6	3	5	N/A	N/A	N/A
TWR2204	2	6	3	5	N/A	N/A	N/A
TWR2224	2	6	N/A	N/A	8	3	4

T4 (TO-8 Package)

+DC VOLTAGE

T5 (5 Pin TO-8 Package)

+DC VOLTAGE

T7 (TO-12 Package)

+DC VOLTAGE

T8 (TO8-B Package)

+DC VOLTAGE

T10 (TO-39 Package)

SM1 (Surface Mount Package)

SM2 (Surface Mount Package)

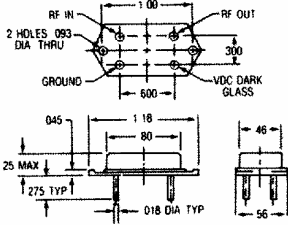
Model No.	Is	Out	DC	A	B	CTL
All Amps	3	1	2	N/A	N/A	N/A
TWR2278	3	1	N/A	4	2	N/A
TWR0002	1	3	2	N/A	N/A	4

SM3 (Surface Mount Package)

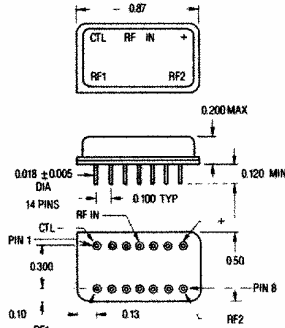
SM4 (Surface Mount Package)

Outline Drawings All unmarked Pins are internally grounded.

DP1 (Dip)



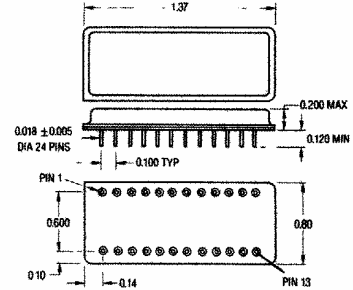
DP3 (Dip)



Model No.	CTL	RF1	RF2	+V	CTL
ALL	4	14	8	7	1
TW05001 ONLY	4	14	8	3	5

RF 2 not used on SPST Switches
+V = +5 Vdc ± 15V

DP5 (Dip)



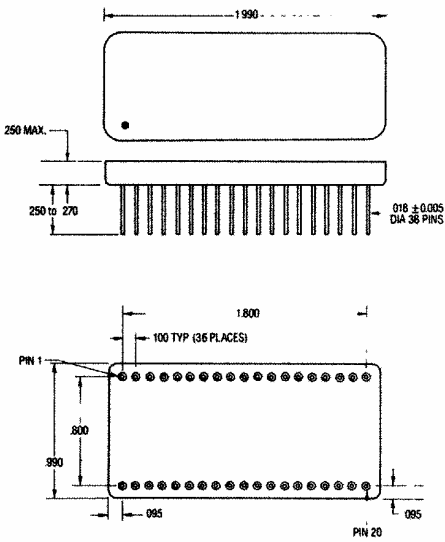
DP-5 Switches

Model No.	CTL	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	CTL	CTL	CTL	+	-
TW05003	7	1	24	13	12	N/A	N/A	N/A	N/A	21	20	17	16	15
TW05004	7	1	24	13	12	N/A	N/A	N/A	N/A	20	19	17	21	16
TW05005	19	1	3	10	12	13	15	22	24	5	6	7	N/A	8 17

DP-5 Digital Attenuators

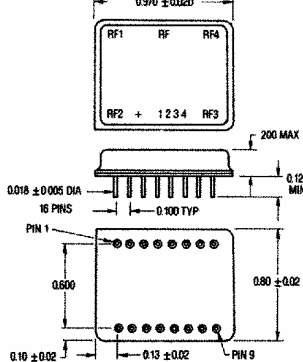
Model No.	RF	RF	RF	RF	RF	RF	RF	RF	RF	RF	RF	RF	RF	RF	RF	RF
TW05006	24	13	N/A	6	7	N/A	8	N/A	9	N/A	5	N/A	1	3	N/A	N/A
TW05008	24	13	N/A	N/A	5	N/A	8	N/A	10	3	N/A	1	N/A	N/A	N/A	N/A
TW05007	24	13	N/A	N/A	5	N/A	3	N/A	10	3	N/A	1	N/A	N/A	N/A	N/A
TW05008	24	13	N/A	6	N/A	7	N/A	8	N/A	9	N/A	5	1	N/A	N/A	N/A

DP8 (Dip)



Model No.	RF	RF	RF	RF	RF	RF	RF	RF	RF	RF	RF	RF	RF	RF	RF	RF
TW05009	28	20	13	9	11	N/A	15	N/A	7	N/A	5	N/A	17	N/A	N/A	N/A
TW05010	36	20	N/A	N/A	N/A	7	N/A	9	N/A	11	N/A	13	N/A	15	17	5 1

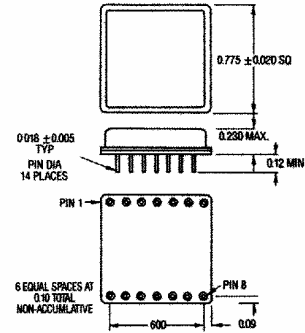
DP10 (Dip)



Model No.	CTL	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	RF9	RF10
ALL	5	1	8	8	16	15	13	12	11	10	4

RF 4 not connected on SPST Switches
+V = +5 Vdc

DP11 (Dip)



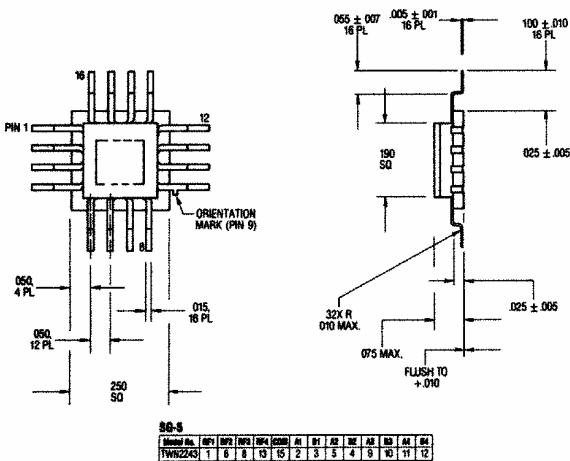
DP-11 Switch

Model No.	RF	RF	RF	RF	RF	RF	RF	RF	RF
TW05002	11	1	7	3	5	4			

DP-11 Digital Attenuator

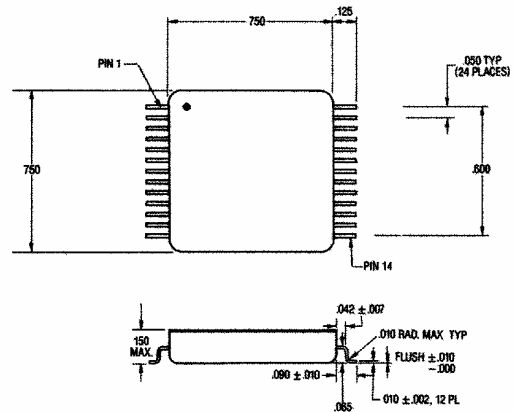
Model No.	RF	RF	RF	RF	RF	RF	RF	RF	RF
TW05006	7	1	14	3	11	12	4	10	6

SG5 (Gull Wing Surface Mount Package)



Model No.	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	RF9	RF10	RF11	RF12
TW05243	1	8	8	15	15	2	3	3	4	9	10	11 12

SG2 (Gull Wing Surface Mount Package)

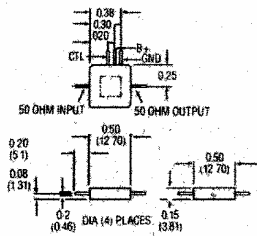


SG-2

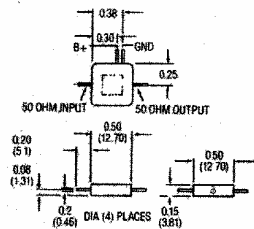
Model No.	CTL	RF1	RF2	RF3	RF4	RF5	RF6	RF7	RF8	RF9	RF10	RF11	RF12
TW05005	7	15	17	10	21	23	25	13	3	4	5		

Outline Drawings All unmarked Pins are internally grounded.

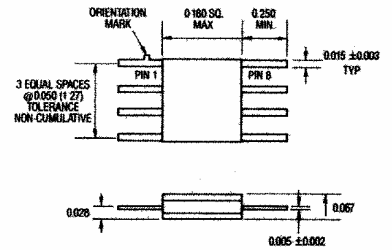
FP2 (Flatpack)



FP4 (Flatpack)



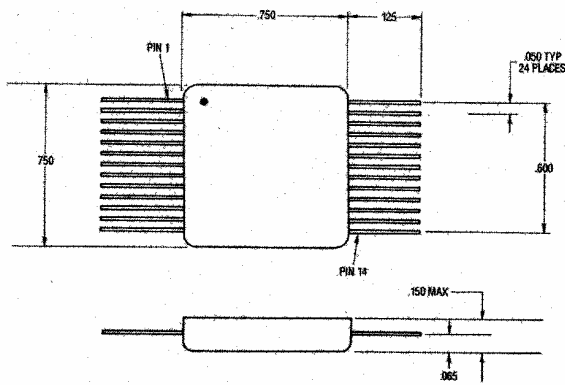
FP7 (Flatpack)



FP-7 PIN CONFIGURATION

Model No.	RF COM	RF1	RF2	A	B
SPST	NA	8	5	2	3
SPDT	1	3	6	4	5

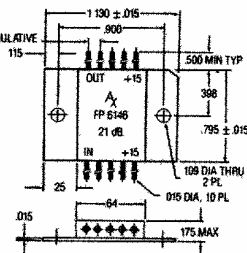
FP9 (Flatpack)



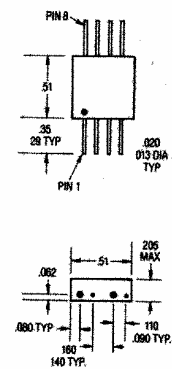
FP-9

Model No.	COM	RF1	RF2	RF3	RF4	RF5	RF6	RF7	A	CTL	CTL	CTL
TWP9004	7	14	16	18	20	22	24	26	13	3	4	5

FP10 (Flatpack)



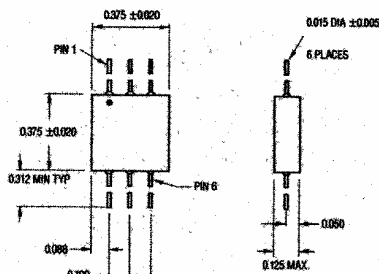
FP11 (Flatpack)



FP-11

Model No.	Def	V _{cc}	V _{cc}	V _{cc}
V00s	7	3	1	1

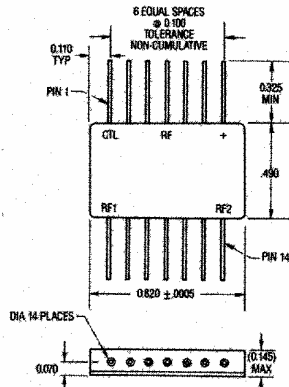
FP12 (Flatpack)



FP-12

Model No.	RF1	RF2	COM	A	B	A	B	CTL
TWP2214	2	4	NA	1	3	NA	NA	NA
TWP2282	4	6	2	1	3	NA	NA	NA
TWP2225	4	6	2	NA	NA	1	3	4

FP13 (Flatpack)



FP14 (Flatpack)

