PIN DIODE ABSORPTIVE ATTENUATORS

Broadband – High Resolution – Low Insertion Loss and V.S.W.R.
Monotonic Performance Guaranteed – Phase Free Models

Part Numbering for pin diode ABSORPTIVE ATTENUATORS

CODE	MODEL
C	CURRENT CONTROL – ANALOG
V	VOLTAGE CONTROL – ANALOG
L	LINEARIZED VOLTAGE – ANALOG
P	DIGITALLY CONTROLLED ANALOG
D	DIGITAL SWITCHED PAD

CODE	TEMPERATURE COMPENSATION
N	0? C to +50? C
A	–10? C to +65? C
T	–55? C to +85? C
X	OPTIMIZED RANGE

SUFFIX DESIGNATOR	
CODE	DESCRIPTION
[ ] [ ] [ ]	IF REQUIRED; THE FACTORY MAY ASSIGN A UNIQUE MODEL IDENTIFER

A [ ] [ ] [ ] – [ ] [ ] [ ] – [ ] [ ] [ ]

CODE	TYPE
0	CUSTOM
3	32 dB
6	64 dB
8	80 dB

CODE	CENTER FREQUENCY
0	CLASSIFIED FREQUENCY
1	≦ 300 MHz – VHF
2	≦ 1 GHz – UHF
3	≦ 2 GHz – L
4	≦ 4 GHz – S
5	≦ 8 GHz – C
6	≦ 12.4 GHz – X
7	≦ 18 GHz – Ku
8	> 18 GHz – K

CODE	BANDWIDTH
0	≦ 5 %
1	≦ 10 %
2	≦ 20 %
3	≦ 30 %
4	≦ 40 %
5	≦ 50 %
6	> 50 %
7	C.W. FREQ.
8	≧ OCTAVE
9	MULTIOCTAVE

CODE	SWITCH SPEED & No of BITS
0	CUSTOM LOGIC
1	1 uSEC – 10
2	7 uSEC – 10
3	1 uSEC – 8
4	7 uSEC – 8
5	150 nSEC – 4
6	150 nSEC – 6
7	7 uSEC – ANAL
8	1 uSEC – ANAL

$$fc = \frac{fh + fl}{2}$$

$$BW = \frac{(fh - fl)\ 100}{fc}$$

G.T. Microwave inc. part numbers are composed by selecting the codes for TYPE and MODEL, then calculating CENTER FREQUENCY and BANDWIDTH to obtain the codes, selecting the code for temperature range and finally selecting the code for SWITCHING SPEED. If required, the factory may assign a unique model identifier. Use the examples to the right or consult a factory representative.

Current controlled attenuator, 32 dB attenuation, Frequency 5 GHz, Temp. 0? to 50? C, switching speed 7 uSEC

A3C–57N–7

Programmable 10 BIT attenuator, 80 dB attenuation, Frequency 2–18 GHz, Temp. –55? to 85? C, switching speed 1 uSEC

A8P–69T–1

Environmental Ratings for pin diode ABSORPTIVE ATTENUATORS

OPERATING TEMPERATURE RANGE –55? C to +85? C

EXPOSURE	MIL–STD–202	TEST CONDITION
ALTITUDE	METHOD 105C	C
HUMIDITY	METHOD 106E	
THERMAL SHOCK	METHOD 107D	A
LIFE TEST	METHOD 108A	D

EXPOSURE	MIL–STD–202	TEST CONDITION
SINE VIBRATION	METHOD 204D	D
RANDOM VIBRATION	METHOD 214	11D 15 min/axis
MECHANICAL SHOCK	METHOD 213B	G
TERMINAL STRENGTH	METHOD 211A	A, 2 lbs

For higher environmental levels; consult factory