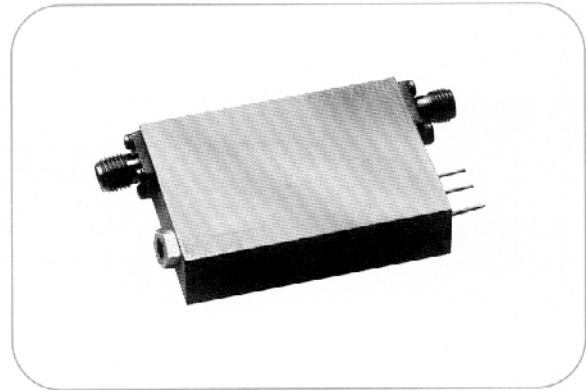


# ANALOG PIN ATTENUATORS

## FEATURES

- Attenuation range of up to 64 dB
- Up to octave bandwidths
- Voltage or current control
- MESFET-based analog attenuators covering 0.2–40 GHz in multioctave bands are available



Frequency Range (GHz)	Model Number	Insertion Loss (dB, Max.)	VSWR* In/Out (Max.)	Amplitude Response** (dB)	Atten. Range Options (dB, Min.)	Control Options*** (VDC)	Outline	Additional Features
<b>STANDARD, NARROWBAND VOLTAGE-CONTROLLED MODELS</b>								
0.95–1.45	MPAT-095145-	1.1	1.5:1	See notes	10–60	0–20	1	–
0.95–1.75	MPAT-095175-	1.1	1.5:1	See notes	10–60	0–20	1	–
1.275–1.48	MPAT-127148-	2.5	1.5:1	See notes	30	0–20	3	–
1.5–1.8	MPAT-150180-	1.1	1.5:1	See notes	10–60	0–20	2	–
1.654–1.746	MPAT-165175-	1.1	1.5:1	0.25 in band	20	0–20	2	–
2.1–2.7	MPAT-210270-	1.5	1.5:1	See notes	10–60	0–20	2	–
2–2.2	MPAT-124068-	1.7	1.5:1	0.3 in band	37	0–6	2	Input P1 dB = 20 dBm High power: 20 W peak, operating, 40 W peak, survival.
3.1–3.5	MPAT-03100350-	2.2	1.3:1	0.25 in band	15	0–5	Contact factory	–
3.4–4.2	MPAT-340420-	2.2	1.5:1	See notes	10–60	0–20	2	–
3.62–4.205	MPAT-362420-	2.2	1.5:1	See notes	10–60	0–20	2	–
3.8–4.1	MPAT-03800410-	1.3	1.5:1	1 max. at 20–80 dB atten.	10–60	0–5	2	–
4.5–4.8	MPAT-450480-	2.2	1.5:1	See notes	10–60	0–20	2	–
5.845–6.43	MPAT-584643-	2.2	1.5:1	See notes	10–60	0–20	2	–
6.4–7.2	MPAT-640720-	2.2	1.5:1	See notes	10–60	0–20	2	–
7.25–7.75	MPAT-725775-	2.2	1.5:1	See notes	10–60	0–20	2	–
7.5–8.5	MPAT-750850-125964	1.8	1.5:1	0.25 in band	10	0–10	4	–
7.9–8.4	MPAT-790840-	2.2	1.5:1	See notes	10–60	0–20	2	–
8–12	MPAT-8001200-124792	2.2	1.8:1	–	60	–	3	Attenuation flatness: ±1.6 dB maximum, 150 ns switch speed maximum
10.95–11.7	MPAT-109117-	2.2	1.5:1	See notes	10–60	0–20	3	–
10.95–12.2	MPAT-109122-	2.2	1.5:1	See notes	10–60	0–20	3	–
10.7–11.7	MPAT-107117-	2.2	1.5:1	See notes	10–60	0–20	3	–
10.7–12.5	MPAT-107125-	2.2	1.5:1	See notes	10–60	0–20	3	–
10.95–12.75	MPAT-109128-	2.2	1.5:1	See notes	10–60	0–20	3	–
11.7–12.2	MPAT-117122-	2.2	1.5:1	See notes	10–60	0–20	3	–
11.7–12.75	MPAT-117128-	2.2	1.5:1	See notes	10–60	0–20	3	–
12.2–12.75	MPAT-122128-	2.2	1.5:1	See notes	10–60	0–20	3	–

\* VSWR is guaranteed over full attenuation range.

\*\* Amplitude response: ±0.2 dB p-p over any 40 MHz window, 1 dB p-p over full band from 0–30 dB attenuation.

\*\*\* Insertion loss occurs at 0 V control.

Custom models featuring broader bandwidths, and/or optimized specifications are also available. Consult factory for options.

## ANALOG PIN ATTENUATORS (CONT.)

Frequency Range (GHz)	Model Number	Insertion Loss (dB, Max.)	VSWR* In/Out (Max.)	Amplitude Response** (dB)	Atten. Range Options (dB, Min.)	Control Options*** (VDC)	Outline	Additional Features
<b>STANDARD, NARROWBAND VOLTAGE-CONTROLLED MODELS (CONT.)</b>								
12.75–13.25	MPAT-128133-	2.5	1.5:1	See notes	10–60	0–20	3	–
13.75–14.5	MPAT-138145-	2.5	1.5:1	See notes	10–60	0–20	3	–
14–14.5	MPAT-140145-	2.5	1.5:1	See notes	10–60	0–20	3	–
14–14.8	MPAT-140148-	2.7	1.5:1	See notes	10–60	0–20	3	–
17.3–17.8	MPAT-173178-	2.7	1.5:1	See notes	10–60	0–20	4	–
17.3–18.1	MPAT-173181-	3	1.5:1	See notes	10–60	0–20	4	–
17.7–20.2	MPAT-177202-	3	1.5:1	See notes	10–60	0–20	4	–
18.8–19.6	MPAT-188196-	3	1.5:1	See notes	10–60	0–20	4	–

<b>CURRENT-CONTROLLED ANALOG PIN ATTENUATORS</b>								
4–8	MPAT-0400080-	2	1.7:1	0.3 at 10 dB 1.5 at 40 dB 1.6 at 60 dB	10–60	–	2	50 ns switch speed maximum
8–12	MPAT-08001200-	2.2	1.7:1	0.5 at 10 dB 1.5 at 40 dB 1.6 at 60 dB	10–60	–	3	–

\* VSWR is guaranteed over full attenuation range.

\*\* Amplitude response:  $\pm 0.2$  dB p-p over any 40 MHz window, 1 dB p-p over full band from 0–30 dB attenuation.

\*\*\* Insertion loss occurs at 0 V control.

Custom models featuring broader bandwidths, and/or optimized specifications are also available. Consult factory for options.

## ORDERING INFORMATION

To order a standard power divider with specific parameters, please include the following:

	<i>MPAT107007-</i>	<i>40</i>	<i>15</i>	<i>1M/1F</i>	<i>S</i>
<b>Model Number</b>					
Specify from tables on previous page.					
<b>Maximum Attenuation Range (dB)</b>					
<b>Control Voltage</b>					
<b>Connectors*</b>					
SMA .....	1				
3.5mm .....	2				
2.4mm .....	3				
K .....	4				
GPO .....	5				
Please add F for female or M for male.					
<b>Special Technical Specification Requirements</b>					
If required they must be denoted on the purchase order .....	S				

\* Unless otherwise specified on the purchase order, units will be shipped with field replaceable connectors.