



ClearLink® Power Tappers

General Description

Tappers operate similarly to directional couplers but with no directivity. Tappers are uniquely specified, as the value in dB is a ratio of the two output signals, not coupling value. For example, a 3:1 or 4.8 dB taper with a 10 watt input signal would have 7.5 watts output at the mainline port and 2.5 watts output at the tapped port, similar to a 6 dB directional coupler. ClearLink™ Power Tappers feature low PIM, low through loss and power handling up to 200 watts. Available with N Female, 4.3-10 or 7/16 DIN connectors with a matching coupling port.

Frequency Range

- 617-960/1700-2700 MHz for -154 and -161 PIM products
- 698-960/1700-2700 MHz for -153 PIM products

Features & Benefits

- Guaranteed PIM compliance
- Available with N-Type, 4.3-10 or 7/16 DIN female connectors
- Low insertion loss
- Dual directional
- 200 watts average power
- IP65 compliant
- RoHS compliant



7/16 DIN female connector



N-Type female connector.

Specifications

Tapper Value	3	5	6	7	8	10	13	15	20	30
Split Ratio	2:1	3:1	4:1	5:1	7:1	10:1	20:1	30:1	100:1	1000:1
Tap Port Loss (dB)	4.8	6.1	7	7.8	8.5	10.5	13	15.3	20.1	30.1
Through Loss (dB) Typical	1.85	1.32	1.3	1.0	0.75	0.5	0.25	0.2	0.1	0.05
VSWR (:1)	≤1.35:1									
Operating Temperature	-35° C to +75° C									

Specifications subject to change without notice.

Application Note:

Tappers are used to bi-directionally couple power from the main through line to a tap, or sample point. The taper has a coupling factor over a specified frequency range. Tappers may be used to sample and measure power, or inject power into an RF path. In addition, the taper may be used to measure the spectrum of the signals passed bi-directionally on the through path.



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Ordering Details

Connector Type	Dimensions	PIM Rating (dBc)	Standard Coupling (dB)	Description	Part Number
N-Type Female	8.24 in x 2.47 in x .99 in *698-960/1700 2700 MHz for -153 PIM products	-153	5	CLEARLINK-PT5/698-2.7K/N	CS05-115-114
			6	CLEARLINK-PT6/698-2.7K/N	CS05-116-114
			7	CLEARLINK-PT7/698-2.7K/N	CS05-117-114
			8	CLEARLINK-PT8/698-2.7K/N	CS05-118-114
			10	CLEARLINK-PT10/698-2.7K/N	CS05-119-114
			13	CLEARLINK-PT13/698-2.7K/N	CS05-120-114
			15	CLEARLINK-PT15/698-2.7K/N	CS05-121-114
			20	CLEARLINK-PT20/698-2.7K/N	CS05-122-114
			30	CLEARLINK-PT30/698-2.7K/N	CS05-123-114
		-161	3	CLEARLINK-PT3/617-2.7/-161/N	CS05-200-114
4.3-10 Female	5.75 in x 1.97 in x .87 in	-154	5	CLEARLINK-PT5/617-2.7K/4310	CS05-115-1144310
			6	CLEARLINK-PT6/617-2.7K/4310	CS05-116-1144310
			7	CLEARLINK-PT7/617-2.7K/4310	CS05-117-1144310
			8	CLEARLINK-PT8/617-2.7K/4310	CS05-118-1144310
			10	CLEARLINK-PT10/617-2.7K/4310	CS05-119-1144310
			13	CLEARLINK-PT13/617-2.7K/4310	CS05-120-1144310
			15	CLEARLINK-PT15/617-2.7K/4310	CS05-121-1144310
	5.44 in x 1.81 in x .98 in	-161	3	CLEARLINK-PT3/617-2.7K/-161/4310	CS05-162-114
			5	CLEARLINK-PT5/617-2.7K/-161/4310	CS05-163-114
			6	CLEARLINK-PT6/617-2.7K/-161/4310	CS05-164-114
			7	CLEARLINK-PT7/617-2.7K/-161/4310	CS05-165-114
			8	CLEARLINK-PT8/617-2.7K/-161/4310	CS05-166-114
			10	CLEARLINK-PT10/617-2.7K/-161/4310	CS05-167-114
			13	CLEARLINK-PT13/617-2.7K/-161/4310	CS05-168-114
			15	CLEARLINK-PT15/617-2.7K/-161/4310	CS05-169-114
			20	CLEARLINK-PT20/617-2.7K/-161/4310	CS05-170-114

Specifications subject to change without notice.

ClearLink® devices are measured with two tones at +43 dBm.

