6–18 GHz Two-Way RF Power Divider, 10 W CW

The divider splits 6–18 GHz signals into two paths with 10 W CW power handling. Insertion loss is 0.5 dB typical and 0.7 dB maximum; isolation is at least 20 dB.

Impedance is 50 Ω with SMA-K connectors. The source gives typical S12, S23 and VSWR values at eleven frequencies; their test values and signs remain separate from the specification limits.



Electrical specifications

Parameter	Value	Unit
Frequency range	6–18	GHz
Insertion loss [1]	0.5 / 0.7	dB
Isolation	≥20	dB
Input VSWR [2]	1.4 / 1.6	-
Output VSWR [2]	1.4 / 1.6	-
Amplitude balance	≤0.5	dB
Phase balance	≤6	°

[1] Typical: 0.5 dB. Maximum: 0.7 dB.

[2] Typical: 1.4. Maximum: 1.6.

General specifications

Parameter	Value	Unit
CW power handling	10	W
Number of ways	2	-
Phase difference	0	°
Impedance	50	Ω
Connector type	SMA-K	-
Operating temperature	–40–+70 (Design guaranteed. Minimum: -40 °C. Maximum: 70 °C.)	°C

Typical electrical performance

Parameter	Value	Unit
S12 — 6 GHz [1]	-3.10	dB
S23 — 6 GHz [2]	-20.8	dB
S11 VSWR — 6 GHz [3]	1.25	-

Typical electrical performance

Parameter	Value	Unit
S22 VSWR — 6 GHz [4]	1.27	-
S12 — 7 GHz [5]	-3.10	dB
S23 — 7 GHz [6]	-29.6	dB
S11 VSWR — 7 GHz [7]	1.12	-
S22 VSWR — 7 GHz [8]	1.18	-
S12 — 8 GHz [9]	-3.13	dB
S23 — 8 GHz [10]	-30.8	dB
S11 VSWR — 8 GHz [11]	1.16	-
S22 VSWR — 8 GHz [12]	1.14	-
S12 — 9 GHz [13]	-3.15	dB
S23 — 9 GHz [14]	-24.7	dB
S11 VSWR — 9 GHz [15]	1.31	-
S22 VSWR — 9 GHz [16]	1.15	-
S12 — 10 GHz [17]	-3.19	dB
S23 — 10 GHz [18]	-31.9	dB
S11 VSWR — 10 GHz [19]	1.23	-
S22 VSWR — 10 GHz [20]	1.16	-
S12 — 11 GHz [21]	-3.30	dB
S23 — 11 GHz [22]	-24.3	dB
S11 VSWR — 11 GHz [23]	1.47	-
S22 VSWR — 11 GHz [24]	1.27	-
S12 — 12 GHz [25]	-3.21	dB
S23 — 12 GHz [26]	-20.5	dB
S11 VSWR — 12 GHz [27]	1.33	-
S22 VSWR — 12 GHz [28]	1.21	-
S12 — 14 GHz [29]	-3.32	dB
S23 — 14 GHz [30]	-38.2	dB
S11 VSWR — 14 GHz [31]	1.36	-
S22 VSWR — 14 GHz [32]	1.21	-

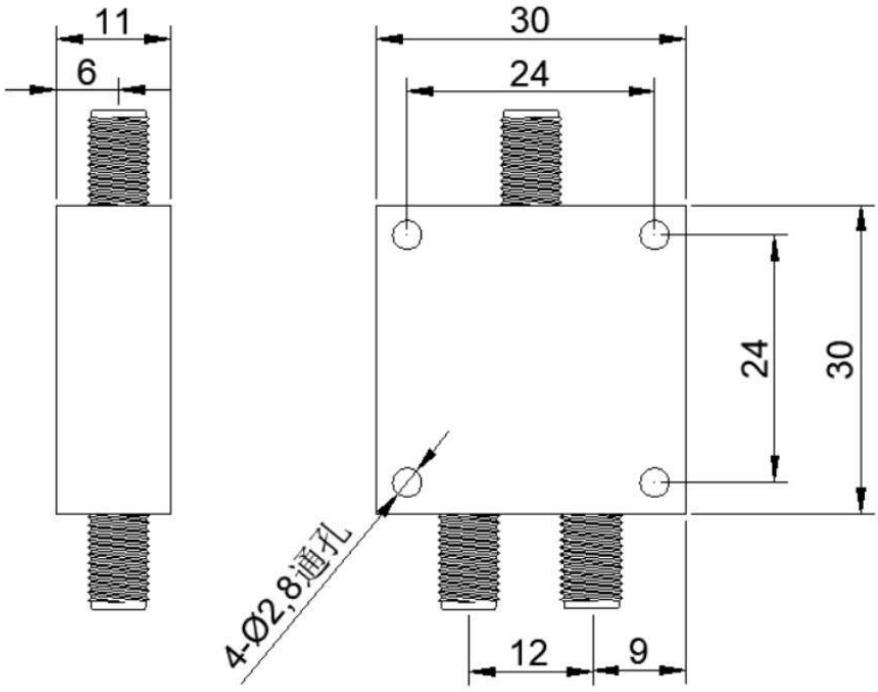
Typical electrical performance

Parameter	Value	Unit
S12 — 15 GHz [33]	-3.26	dB
S23 — 15 GHz [34]	-27.7	dB
S11 VSWR — 15 GHz [35]	1.07	-
S22 VSWR — 15 GHz [36]	1.28	-
S12 — 17 GHz [37]	-3.28	dB
S23 — 17 GHz [38]	-22.8	dB
S11 VSWR — 17 GHz [39]	1.39	-
S22 VSWR — 17 GHz [40]	1.32	-
S12 — 18 GHz [41]	-3.29	dB
S23 — 18 GHz [42]	-23.8	dB
S11 VSWR — 18 GHz [43]	1.31	-
S22 VSWR — 18 GHz [44]	1.42	-

[1] 6 GHz Typical: -3.1 dB.
[2] 6 GHz Typical: -20.8 dB.
[3] 6 GHz Typical: 1.25.
[4] 6 GHz Typical: 1.27.
[5] 7 GHz Typical: -3.1 dB.
[6] 7 GHz Typical: -29.6 dB.
[7] 7 GHz Typical: 1.12.
[8] 7 GHz Typical: 1.18.
[9] 8 GHz Typical: -3.13 dB.
[10] 8 GHz Typical: -30.8 dB.
[11] 8 GHz Typical: 1.16.
[12] 8 GHz Typical: 1.14.
[13] 9 GHz Typical: -3.15 dB.
[14] 9 GHz Typical: -24.7 dB.
[15] 9 GHz Typical: 1.31.
[16] 9 GHz Typical: 1.15.
[17] 10 GHz Typical: -3.19 dB.
[18] 10 GHz Typical: -31.9 dB.
[19] 10 GHz Typical: 1.23.
[20] 10 GHz Typical: 1.16.
[21] 11 GHz Typical: -3.3 dB.
[22] 11 GHz Typical: -24.3 dB.
[23] 11 GHz Typical: 1.47.
[24] 11 GHz Typical: 1.27.
[25] 12 GHz Typical: -3.21 dB.
[26] 12 GHz Typical: -20.5 dB.

[27] 12 GHz Typical: 1.33.
[28] 12 GHz Typical: 1.21.
[29] 14 GHz Typical: -3.32 dB.
[30] 14 GHz Typical: -38.2 dB.
[31] 14 GHz Typical: 1.36.
[32] 14 GHz Typical: 1.21.
[33] 15 GHz Typical: -3.26 dB.
[34] 15 GHz Typical: -27.7 dB.
[35] 15 GHz Typical: 1.07.
[36] 15 GHz Typical: 1.28.
[37] 17 GHz Typical: -3.28 dB.
[38] 17 GHz Typical: -22.8 dB.
[39] 17 GHz Typical: 1.39.
[40] 17 GHz Typical: 1.32.
[41] 18 GHz Typical: -3.29 dB.
[42] 18 GHz Typical: -23.8 dB.
[43] 18 GHz Typical: 1.31.
[44] 18 GHz Typical: 1.42.

Mechanical Outline



Document notice

Specifications are subject to revision. Before design release, confirm the current document revision and product-specific requirements with LCRF. The approved quotation and order documentation define the supplied configuration.