

BIAS TEE

HBシリーズ



■ 特長

1. DCをカットし、電圧を供給

高周波特性に影響を与えることなく、被測定物にDCバイアス(50V、2.5A Max)を供給することができます。

2. 嵌合部はSMAコネクタ

嵌合部にはSMAコネクタ(当社HRMシリーズ、インピーダンス $Z=50\Omega$)を有しています。

3. 広帯域で高性能を確保

使用周波数が0.5GHz~1.8GHzという広帯域で0.3dB以下という低挿入損失を確保しています。

■ 製品規格

定格	周波数範囲 特性インピーダンス 最大使用電力(総入力電力)	0.5~1.8GHz 50 Ω 1W	使用温度範囲 使用相対湿度	-10°C~+65°C 95%以下
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■ 材質・処理

部品	材質	処理
外装	アルミニウム	導電性白色アルマイト
コネクタ外装	ステンレス鋼	パッシブイット
雌コンタクト	ベリリウム銅	金めっき

■ 製品番号の構成

HB - HRM - JJ (40)

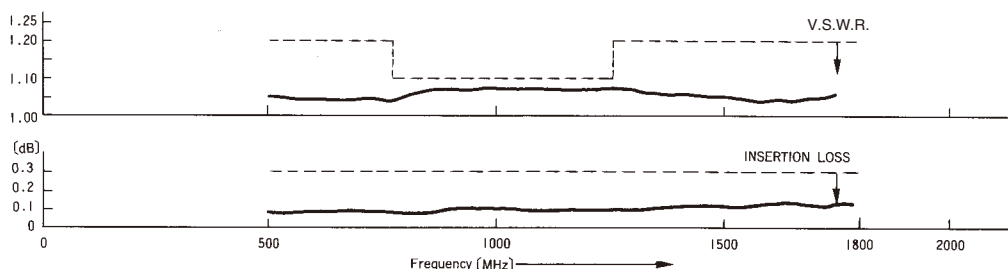
① ② ③ ④

① シリーズ名: HB	④ (40): RoHS適合製品 を表す
② コネクタ種別 SMAコネクタ(当社HRMシリーズ)	
③ コネクタ嵌合部 ジャック-ジャック	

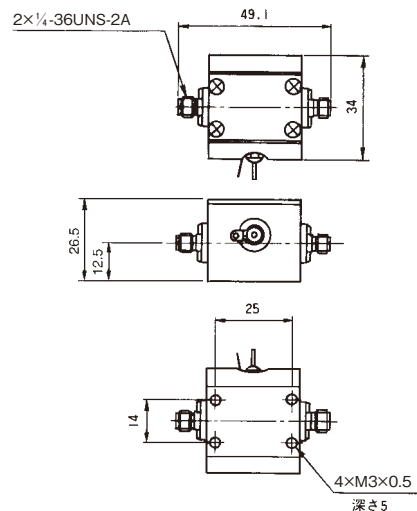
■ 仕様

製品番号	HRS No.	機能	コネクタ	回路	使用周波数 (GHz)	V.S.W.R. (Max)	挿入損失 (dB Max)	電力 (W)	質量 (g)	RoHS
HB-HRM-JJ(40)	355-0064-6 40	BIAS TEE	HRM-J・J		0.8~1.2 0.5~1.8	1.1 1.2	0.3	1	60	○

◆ 高周波データ



■ 外形寸法図



X.FL
W.FL2
W.FL
N.FL
U.FL
E.FL
H.FL
FL

MS-180
MS-156C
MS-162B
MS-151NB

1.85mm
2.4mm
2.92mm

SMPM
SMP

MMCX
N
BNC
TNC
HRM(SMA)
N.U.M(SMB)

UM
MSS
PO6
POB
POD
POD1

PO51M_82M_21M
PO51_P072
MRF14

COMPONENT

BNC75
H.FL75
PL71
PL75
PL76
NF

変換アダプタ
結線工具
変換表

dBm→Milli-Watt变换表

	dBm	Milli-Watt	dBm	Milli-Watt	dBm	Milli-Watt	dBm	Milli-Watt	dBm	Milli-Watt	dBm	Milli-Watt	dBm	Milli-Watt
X.FL	-18.0	.0158	-11.1	.0776	-4.2	.380	2.7	1.86	9.6	9.12	16.5	44.7	23.4	219
W.FL2	-17.9	.0162	-11.0	.0794	-4.1	.389	2.8	1.91	9.7	9.33	16.6	45.7	23.5	224
W.FL	-17.8	.0166	-10.9	.0813	-4.0	.398	2.9	1.95	9.8	9.55	16.7	46.8	23.6	229
N.FL	-17.7	.0170	-10.8	.0832	-3.9	.407	3.0	2.00	9.9	9.77	16.8	47.9	23.7	234
U.FL	-17.6	.0174	-10.7	.0851	-3.8	.417	3.1	2.04	10.0	10.0	16.9	49.0	23.8	240
E.FL	-17.5	.0178	-10.6	.0871	-3.7	.427	3.2	2.09	10.1	10.2	17.0	50.1	23.9	245
H.FL	-17.4	.0182	-10.5	.0891	-3.6	.437	3.3	2.14	10.2	10.5	17.1	51.3	24.0	251
FL	-17.3	.0186	-10.4	.0912	-3.5	.447	3.4	2.19	10.3	10.7	17.2	52.5	24.1	257
MS-180	-17.2	.0191	-10.3	.0933	-3.4	.457	3.5	2.24	10.4	11.0	17.3	53.7	24.2	263
MS-156C	-17.1	.0195	-10.2	.0955	-3.3	.468	3.6	2.29	10.5	11.2	17.4	55.0	24.3	269
MS-162B	-17.0	.0200	-10.1	.0977	-3.2	.479	3.7	2.34	10.6	11.5	17.5	56.2	24.4	275
MS-151NB	-16.9	.0204	-10.0	.100	-3.1	.490	3.8	2.40	10.7	11.7	17.6	57.5	24.5	282
1.85mm	-16.8	.0209	- 9.9	.102	-3.0	.501	3.9	2.45	10.8	12.0	17.7	58.9	24.6	288
2.4mm	-16.7	.0214	- 9.8	.105	-2.9	.513	4.0	2.51	10.9	12.3	17.8	60.3	24.7	295
2.92mm	-16.6	.0219	- 9.7	.107	-2.8	.525	4.1	2.57	11.0	12.6	17.9	61.7	24.8	302
SMPM	-16.5	.0224	- 9.6	.110	-2.7	.537	4.2	2.63	11.1	12.9	18.0	63.1	24.9	309
SMP	-16.4	.0229	- 9.5	.112	-2.6	.550	4.3	2.69	11.2	13.2	18.1	64.6	25.0	316
MMCX	-16.3	.0234	- 9.4	.115	-2.5	.562	4.4	2.75	11.3	13.5	18.2	66.1	25.1	324
N	-16.2	.0240	- 9.3	.117	-2.4	.575	4.5	2.82	11.4	13.8	18.3	67.6	25.2	331
BNC	-16.1	.0245	- 9.2	.120	-2.3	.589	4.6	2.88	11.5	14.1	18.4	69.2	25.3	339
TNC	-16.0	.0251	- 9.1	.123	-2.2	.603	4.7	2.95	11.6	14.5	18.5	70.8	25.4	347
HRM(SMA)	-15.9	.0257	- 9.0	.126	-2.1	.617	4.8	3.02	11.7	14.8	18.6	72.4	25.5	355
N.UM(SMB)	-15.8	.0263	- 8.9	.129	-2.0	.631	4.9	3.09	11.8	15.1	18.7	74.1	25.6	363
UM	-15.7	.0269	- 8.8	.132	-1.9	.646	5.0	3.16	11.9	15.5	18.8	75.9	25.7	372
MSS	-15.6	.0275	- 8.7	.135	-1.8	.661	5.1	3.24	12.0	15.8	18.9	77.6	25.8	380
PO6	-15.5	.0282	- 8.6	.138	-1.7	.676	5.2	3.31	12.1	16.2	19.0	79.4	25.9	389
POB	-15.4	.0288	- 8.5	.141	-1.6	.692	5.3	3.39	12.2	16.6	19.1	81.3	26.0	398
POD	-15.3	.0295	- 8.4	.145	-1.5	.708	5.4	3.47	12.3	17.0	19.2	83.2	26.1	407
POD1	-15.2	.0302	- 8.3	.148	-1.4	.724	5.5	3.55	12.4	17.4	19.3	85.1	26.2	417
PO51M_82M_21M	-15.1	.0309	- 8.2	.151	-1.3	.741	5.6	3.63	12.5	17.8	19.4	87.1	26.3	427
PO51_PO72	-15.0	.0316	- 8.1	.155	-1.2	.759	5.7	3.72	12.6	18.2	19.5	89.1	26.4	437
MRF14	-14.9	.0324	- 8.0	.158	-1.1	.776	5.8	3.80	12.7	18.6	19.6	91.2	26.5	447
COMPONENT	-14.8	.0331	- 7.9	.162	-1.0	.794	5.9	3.89	12.8	19.1	19.7	93.3	26.6	457
BNC75	-14.7	.0339	- 7.8	.166	-0.9	.813	6.0	3.98	12.9	19.5	19.8	95.5	26.7	468
H.FL75	-14.6	.0347	- 7.7	.170	-0.8	.832	6.1	4.07	13.0	20.0	19.9	97.7	26.8	479
PL71	-14.5	.0355	- 7.6	.174	-0.7	.851	6.2	4.17	13.1	20.4	20.0	100	26.9	490
PL75	-14.4	.0363	- 7.5	.178	-0.6	.971	6.3	4.27	13.2	20.9	20.1	102	27.0	501
PL76	-14.3	.0372	- 7.4	.182	-0.5	.891	6.4	4.37	13.3	21.4	20.2	105	27.1	513
NF	-14.2	.0380	- 7.3	.186	-0.4	.912	6.5	4.47	13.4	21.9	20.3	107	27.2	525
变换アダプタ	-14.1	.0389	- 7.2	.191	-0.3	.933	6.6	4.57	13.5	22.4	20.4	110	27.3	537
结线工具	-14.0	.0398	- 7.1	.195	-0.2	.955	6.7	4.68	13.6	22.9	20.5	112	27.4	550
变换表	-13.9	.0407	- 7.0	.200	-0.1	.977	6.8	4.79	13.7	23.4	20.6	115	27.5	562
	-13.8	.0417	- 6.9	.204	0.0	1.00	6.9	4.90	13.8	24.0	20.7	117	27.6	575
	-13.7	.0427	- 6.8	.209	0.1	1.02	7.0	5.01	13.9	24.5	20.8	120	27.7	589
	-13.6	.0437	- 6.7	.214	0.2	1.05	7.1	5.13	14.0	25.1	20.9	123	27.8	603
	-13.5	.0447	- 6.6	.219	0.3	1.07	7.2	5.25	14.1	25.7	21.0	126	27.9	617
	-13.4	.0457	- 6.5	.224	0.4	1.10	7.3	5.37	14.2	26.3	21.1	129	28.0	631
	-13.3	.0468	- 6.4	.229	0.5	1.12	7.4	5.50	14.3	26.9	21.2	132	28.1	646
	-13.2	.0479	- 6.3	.234	0.6	1.15	7.5	5.62	14.4	27.5	21.3	135	28.2	661
	-13.1	.0490	- 6.2	.240	0.7	1.17	7.6	5.75	14.5	28.2	21.4	138	28.3	676
	-13.0	.0501	- 6.1	.245	0.8	1.20	7.7	5.89	14.6	28.8	21.5	141	28.4	692
	-12.9	.0513	- 6.0	.251	0.9	1.23	7.8	6.03	14.7	29.5	21.6	145	28.5	708
	-12.8	.0525	- 5.9	.257	1.0	1.26	7.9	6.17	14.8	30.2	21.7	148	28.6	724
	-12.7	.0537	- 5.8	.263	1.1	1.29	8.0	6.31	14.9	30.9	21.8	151	28.7	741
	-12.6	.0550	- 5.7	.269	1.2	1.32	8.1	6.46	15.0	31.6	21.9	155	28.8	759
	-12.5	.0562	- 5.6	.275	1.3	1.35	8.2	6.61	15.1	32.4	22.0	158	28.9	776
	-12.4	.0575	- 5.5	.282	1.4	1.38	8.3	6.76	15.2	33.1	22.1	162	29.0	794
	-12.3	.0589	- 5.4	.288	1.5	1.41	8.4	6.92	15.3	33.9	22.2	166	29.1	813
	-12.2	.0603	- 5.3	.295	1.6	1.45	8.5	7.08	15.4	34.7	22.3	170	29.2	832
	-12.1	.0617	- 5.2	.302	1.7	1.48	8.6	7.24	15.5	35.5	22.4	174	29.3	851
	-12.0	.0631	- 5.1	.309	1.8	1.51	8.7	7.41	15.6	36.3	22.5	178	29.4	871
	-11.9	.0646	- 5.0	.316	1.9	1.55	8.8	7.59	15.7	37.2	22.6	182	29.5	891
	-11.8	.0661	- 4.9	.324	2.0	1.58	8.9	7.76	15.8	38.0	22.7	186	29.6	912
	-11.7	.0676	- 4.8	.331	2.1	1.62	9.0	7.94	15.9	38.9	22.8	191	29.7	933
	-11.6	.0692	- 4.7	.339	2.2	1.66	9.1	8.13	16.0	39.8	22.9	195	29.8	955
	-11.5	.0708	- 4.6	.347	2.3	1.70	9.2	8.32	16.1	40.7	23.0	200	29.9	977
	-11.4	.0724	- 4.5	.355	2.4	1.74	9.3	8.51	16.2	41.7	23.1	204	30.0	1000
	-11.3	.0741	- 4.4	.363	2.5	1.78	9.4	8.71	16.3	42.7	23.2	209		
	-11.2	.0759	- 4.3	.372	2.6	1.82	9.5	8.91	16.4	43.7	23.3	214		

■dBm→Watt変換表

dBm	Watt	dBm	Watt	dBm	Watt	dBm	Watt	dBm	Watt	dBm	Watt	dBm	Watt
30.1	1.02	35.9	3.89	41.7	14.80	47.5	56.20	53.3	214.00	59.1	813.00	64.9	3090.00
30.2	1.05	36.0	3.98	41.8	15.10	47.6	57.50	53.4	219.00	59.2	832.00	65.0	3160.00
30.3	1.07	36.1	4.07	41.9	15.50	47.7	58.90	53.5	224.00	59.3	851.00	65.1	3240.00
30.4	1.10	36.2	4.17	42.0	15.80	47.8	60.30	53.6	229.00	59.4	871.00	65.2	3310.00
30.5	1.12	36.3	4.27	42.1	16.20	47.9	61.70	53.7	234.00	59.5	891.00	65.3	3390.00
30.6	1.15	36.4	4.37	42.2	16.60	48.0	63.10	53.8	240.00	59.6	912.00	65.4	3470.00
30.7	1.17	36.5	4.47	42.3	17.00	48.1	64.60	53.9	245.00	59.7	933.00	65.5	3550.00
30.8	1.20	36.6	4.57	42.4	17.40	48.2	66.10	54.0	251.00	59.8	955.00	65.6	3630.00
30.9	1.23	36.7	4.68	42.5	17.80	48.3	67.60	54.1	257.00	59.9	977.00	65.7	3720.00
31.0	1.26	36.8	4.79	42.6	18.20	48.4	69.20	54.2	263.00	60.0	1000.00	65.8	3800.00
31.1	1.29	36.9	4.90	42.7	18.60	48.5	70.80	54.3	269.00	60.1	1020.00	65.9	3890.00
31.2	1.32	37.0	5.01	42.8	19.10	48.6	72.40	54.5	275.00	60.2	1050.00	66.0	3980.00
31.3	1.35	37.1	5.13	42.9	19.50	48.7	74.10	54.5	282.00	60.3	1070.00	66.1	4070.00
31.4	1.38	37.2	5.25	43.0	20.00	48.8	75.90	54.6	288.00	60.4	1100.00	66.2	4170.00
31.5	1.41	37.3	5.37	43.1	20.40	48.9	77.60	54.7	295.00	60.5	1120.00	66.3	4270.00
31.6	1.45	37.4	5.50	43.2	20.90	49.0	79.40	54.8	302.00	60.6	1150.00	66.4	4370.00
31.7	1.48	37.5	5.62	43.3	21.40	49.1	81.30	54.9	309.00	60.7	1170.00	66.5	4470.00
31.8	1.51	37.6	5.75	43.4	21.90	49.2	83.20	55.0	316.00	60.8	1200.00	66.6	4570.00
31.9	1.55	37.7	5.89	43.5	22.40	49.3	85.10	55.1	324.00	60.9	1230.00	66.7	4680.00
32.0	1.58	37.8	6.03	43.6	22.90	49.4	87.10	55.2	331.00	61.0	1260.00	66.8	4790.00
32.1	1.62	37.9	6.17	43.7	23.40	49.5	89.10	55.3	339.00	61.1	1290.00	66.9	4900.00
32.2	1.66	38.0	6.31	43.8	24.00	49.6	91.20	55.4	347.00	61.2	1320.00	67.0	5010.00
32.3	1.70	38.1	6.46	43.9	24.50	49.7	93.30	55.5	355.00	61.3	1350.00	67.1	5130.00
32.4	1.74	38.2	6.61	44.0	25.10	49.8	95.50	55.6	363.00	61.4	1380.00	67.2	5250.00
32.5	1.78	38.3	6.76	44.1	25.70	49.9	97.70	55.7	372.00	61.5	1410.00	67.3	5370.00
32.6	1.82	38.4	6.92	44.2	26.30	50.0	100.00	55.8	380.00	61.6	1450.00	67.4	5500.00
32.7	1.86	38.5	7.08	44.3	26.90	50.1	102.00	55.9	389.00	61.7	1480.00	67.5	5620.00
32.8	1.91	38.6	7.24	44.4	27.50	50.2	105.00	56.0	398.00	61.8	1510.00	67.6	5750.00
32.9	1.95	38.7	7.41	44.5	28.20	50.3	107.00	56.1	407.00	61.9	1550.00	67.7	5890.00
33.0	2.00	38.8	7.59	44.6	28.80	50.4	110.00	56.2	417.00	62.0	1580.00	67.8	6030.00
33.1	2.04	38.9	7.76	44.7	29.50	50.5	112.00	56.3	427.00	62.1	1620.00	67.9	6170.00
33.2	2.09	39.0	7.94	44.8	30.20	50.6	115.00	56.4	437.00	62.2	1660.00	68.0	6310.00
33.3	2.14	39.1	8.13	44.9	30.90	50.7	117.00	56.5	447.00	62.3	1700.00	68.1	6460.00
33.4	2.19	39.2	8.32	45.0	31.60	50.8	120.00	56.6	457.00	62.4	1740.00	68.2	6610.00
33.5	2.24	39.3	8.51	45.1	32.40	50.9	123.00	56.7	468.00	62.5	1780.00	68.3	6760.00
33.6	2.29	39.4	8.71	45.2	33.10	51.0	126.00	56.8	479.00	62.6	1820.00	68.4	6920.00
33.7	2.34	39.5	8.91	45.3	33.90	51.1	129.00	56.9	490.00	62.7	1860.00	68.5	7080.00
33.8	2.40	39.6	9.12	45.4	34.70	51.2	132.00	57.0	501.00	62.8	1910.00	68.6	7240.00
33.9	2.45	39.7	9.33	45.5	35.50	51.3	135.00	57.1	513.00	62.9	1950.00	68.7	7410.00
34.0	2.51	39.8	9.55	45.6	36.30	51.4	138.00	57.2	525.00	63.0	2000.00	68.8	7590.00
34.1	2.57	39.9	9.77	45.7	37.20	51.5	141.00	57.3	537.00	63.1	2040.00	68.9	7760.00
34.2	2.63	40.0	10.00	45.8	38.00	51.6	145.00	57.4	550.00	63.2	2090.00	69.0	7940.00
34.3	2.69	40.1	10.20	45.9	38.90	51.7	148.00	57.5	562.00	63.3	2140.00	69.1	8130.00
34.4	2.75	40.2	10.50	46.0	39.80	51.8	151.00	57.6	575.00	63.4	2190.00	69.2	8320.00
34.5	2.82	40.3	10.70	46.1	40.70	51.9	155.00	57.7	589.00	63.5	2240.00	69.3	8510.00
34.6	2.88	40.4	11.00	46.2	41.70	52.0	158.00	57.8	603.00	63.6	2290.00	69.4	8710.00
34.7	2.95	40.5	11.20	46.3	42.70	52.1	162.00	57.9	617.00	63.7	2340.00	69.5	8910.00
34.8	3.02	40.6	11.50	46.4	43.70	52.2	166.00	58.0	631.00	63.8	2400.00	69.6	9120.00
34.9	3.09	40.7	11.70	46.5	44.70	52.3	170.00	58.1	646.00	63.9	2450.00	69.7	9330.00
35.0	3.16	40.8	12.00	46.6	45.70	52.4	174.00	58.2	661.00	64.0	2510.00	69.8	9550.00
35.1	3.24	40.9	12.30	46.7	46.80	52.5	178.00	58.3	676.00	64.1	2570.00	69.9	9770.00
35.2	3.31	41.0	12.60	46.8	47.90	52.6	182.00	58.4	692.00	64.2	2630.00	70.0	10000.00
35.3	3.39	41.1	12.90	46.9	49.00	52.7	186.00	58.5	708.00	64.3	2690.00		
35.4	3.47	41.2	13.20	47.0	51.10	52.8	191.00	58.6	724.00	64.4	2750.00		
35.5	3.55	41.3	13.50	47.1	51.30	52.9	195.00	58.7	741.00	64.5	2820.00		
35.6	3.63	41.4	13.80	47.2	52.50	53.0	200.00	58.8	759.00	64.6	2880.00		
35.7	3.72	41.5	14.10	47.3	53.70	53.1	204.00	58.9	776.00	64.7	2950.00		
35.8	3.80	41.6	14.50	47.4	55.00	53.2	209.00	59.0	794.00	64.8	3020.00		

交換公式 $dBm=10 \log_{10}(mW)$

- X.FL
- W.FL2
- W.FL
- N.FL
- U.FL
- E.FL
- H.FL
- FL
- MS-180
- MS-156C
- MS-162B
- MS-151NB
- 1.85mm
- 2.4mm
- 2.92mm
- SMPM
- SMP
- MMCX
- N
- BNC
- TNC
- HRM(SMA)
- N.UM(SMB)
- UM
- MSS
- PO6
- POB
- POD
- POD1
- PO51M_82M_21M
- PO51_P072
- MRF14
- COMPONENT
- BNC75
- H.FL75
- PL71
- PL75
- PL76
- NF
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- 結線工具
- 変換表

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RETURN LOSS→V.S.W.R.変換表

R.L(dB)	V.S.W.R.	R.L(dB)	V.S.W.R.	R.L(dB)	V.S.W.R.	R.L(dB)	V.S.W.R.	R.L(dB)	V.S.W.R.
0.5	34.753	13.4	1.544	18.7	1.263	24.0	1.135	29.3	1.071
1.0	17.391	.5	1.536	.8	1.259	.1	1.133	.4	1.070
1.5	11.610	.6	1.528	.9	1.256	.2	1.131	.5	1.069
2.0	8.724	.7	1.521	19.0	1.253	.3	1.130	.6	1.068
2.5	6.997	.8	1.513	.1	1.250	.4	1.128	.7	1.068
3.0	5.848	.9	1.506	.2	1.246	.5	1.127	.8	1.067
3.5	5.030	14.0	1.499	.3	1.243	.6	1.125	.9	1.066
4.0	4.419	.1	1.491	.4	1.240	.7	1.124	30.0	1.065
4.5	3.946	.2	1.484	.5	1.237	.8	1.122	.2	1.064
5.0	3.570	.3	1.478	.6	1.234	.9	1.121	.4	1.063
5.5	3.263	.4	1.471	.7	1.231	25.0	1.119	.6	1.062
6.0	3.010	.5	1.464	.8	1.228	.1	1.118	.8	1.060
6.5	2.796	.6	1.458	.9	1.225	.2	1.116	31.0	1.059
7.0	2.615	.7	1.451	20.0	1.222	.3	1.115	.2	1.057
7.5	2.458	.8	1.445	.1	1.219	.4	1.114	.4	1.056
8.0	2.323	.9	1.439	.2	1.217	.5	1.112	.6	1.055
8.5	2.204	15.0	1.433	.3	1.214	.6	1.111	.8	1.053
9.0	2.100	.1	1.427	.4	1.211	.7	1.109	32.0	1.052
9.5	2.007	.2	1.421	.5	1.208	.8	1.108	.2	1.051
10.0	1.925	.3	1.415	.6	1.206	.9	1.107	.4	1.050
.1	1.910	.4	1.409	.7	1.203	26.0	1.106	.6	1.049
.2	1.894	.5	1.404	.8	1.201	.1	1.104	.8	1.047
.3	1.880	.6	1.398	.9	1.198	.2	1.103	33.0	1.046
.4	1.865	.7	1.393	21.0	1.196	.3	1.102	33.5	1.044
.5	1.851	.8	1.387	.1	1.193	.4	1.101	34.0	1.041
.6	1.837	.9	1.382	.2	1.191	.5	1.099	34.5	1.039
.7	1.824	16.0	1.377	.3	1.188	.6	1.098	35.0	1.036
.8	1.811	.1	1.372	.4	1.186	.7	1.097	35.5	1.034
.9	1.798	.2	1.367	.5	1.184	.8	1.096	36.0	1.032
11.0	1.785	.3	1.362	.6	1.181	.9	1.095	36.5	1.030
.1	1.772	.4	1.357	.7	1.179	27.0	1.094	37.0	1.029
.2	1.760	.5	1.352	.8	1.177	.1	1.093	37.5	1.027
.3	1.748	.6	1.347	.9	1.175	.2	1.092	38.0	1.025
.4	1.737	.7	1.343	22.0	1.173	.3	1.091	38.5	1.024
.5	1.725	.8	1.338	.1	1.170	.4	1.090	39.0	1.023
.6	1.714	.9	1.333	.2	1.168	.5	1.089	39.5	1.021
.7	1.703	17.0	1.329	.3	1.166	.6	1.088	40.0	1.020
.8	1.692	.1	1.325	.4	1.164	.7	1.087	40.5	1.019
.9	1.681	.2	1.310	.5	1.162	.8	1.086	41.0	1.018
12.0	1.671	.3	1.316	.6	1.160	.9	1.085	41.5	1.017
.1	1.661	.4	1.312	.7	1.158	28.0	1.084	42.0	1.016
.2	1.651	.5	1.308	.8	1.156	.1	1.083	42.5	1.015
.3	1.641	.6	1.304	.9	1.154	.2	1.082	43.0	1.014
.4	1.631	.7	1.300	23.0	1.152	.3	1.081	43.5	1.013
.5	1.622	.8	1.296	.1	1.151	.4	1.080	44.0	1.013
.6	1.612	.9	1.292	.2	1.149	.5	1.079	44.5	1.012
.7	1.603	18.0	1.288	.3	1.147	.6	1.078	45.0	1.011
.8	1.594	.1	1.284	.4	1.145	.7	1.077	46.0	1.010
.9	1.586	.2	1.281	.5	1.143	.8	1.076	47.0	1.009
13.0	1.577	.3	1.277	.6	1.141	.9	1.075	48.0	1.008
.1	1.568	.4	1.273	.7	1.140	29.0	1.074	49.0	1.007
.2	1.560	.5	1.270	.8	1.138	.1	1.073	50.0	1.006
.3	1.552	.6	1.266	.9	1.136	.2	1.072	60.0	1.002

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- PO51_PO72
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- 結線工具
- 変換表

■V.S.W.R.→RETURN LOSS変換表

V.S.W.R.	R.L (dB)	V.S.W.R.	R.L (dB)	V.S.W.R.	R.L (dB)	V.S.W.R.	R.L (dB)	V.S.W.R.	R.L (dB)
1.005	52.063	1.205	20.633	1.405	15.473	1.605	12.681	1.805	10.843
.010	46.064	.210	20.443	.410	15.385	.610	12.626	.810	10.804
.015	42.564	.215	20.259	.415	15.297	.615	12.572	.815	10.766
.020	40.086	.220	20.079	.420	15.211	.620	12.518	.820	10.729
.025	38.170	.225	19.903	.425	15.126	.625	12.465	.825	10.691
.030	36.607	.230	19.732	.430	15.043	.630	12.412	.830	10.654
.035	35.290	.235	19.564	.435	14.960	.635	12.360	.835	10.617
.040	34.151	.240	19.401	.440	14.879	.640	12.308	.840	10.581
.045	33.150	.245	19.241	.445	14.798	.645	12.257	.845	10.545
.050	32.256	.250	19.085	.450	14.719	.650	12.207	.850	10.509
.055	31.449	.255	18.932	.455	14.640	.655	12.157	.855	10.473
.060	30.714	.260	18.783	.460	14.564	.660	12.107	.860	10.437
.065	30.040	.265	18.636	.465	14.487	.665	12.058	.865	10.402
.070	29.417	.270	18.493	.470	14.412	.670	12.009	.870	10.367
.075	28.839	.275	18.353	.475	14.338	.675	11.960	.875	10.333
.080	28.299	.280	18.216	.480	14.264	.680	11.913	.880	10.298
.085	27.794	.285	18.081	.485	14.192	.685	11.865	.885	10.264
.090	27.318	.290	17.949	.490	14.120	.690	11.818	.890	10.230
.095	26.869	.295	17.819	.495	14.049	.695	11.772	.895	10.197
.100	26.444	.300	17.692	.500	13.979	.700	11.725	.900	10.163
.105	26.041	.305	11.567	.505	13.910	.705	11.680	.905	10.130
.110	25.658	.310	17.445	.510	13.842	.710	11.634	.910	10.097
.115	25.292	.315	17.325	.515	13.775	.715	11.589	.915	10.064
.120	24.943	.320	17.207	.520	13.708	.720	11.545	.920	10.032
.125	24.609	.325	17.091	.525	13.642	.725	11.501	.925	10.000
.130	24.289	.330	16.977	.530	13.577	.730	11.457	2.000	9.542
.135	23.981	.335	16.865	.535	13.513	.735	11.413	2.100	8.999
.140	23.686	.340	16.755	.540	13.449	.740	11.370	2.200	8.519
.145	23.401	.345	16.647	.545	13.386	.745	11.328	2.300	8.091
.150	23.127	.350	16.540	.550	13.324	.750	11.285	2.400	7.707
.155	22.862	.355	16.435	.555	13.262	.755	11.244	2.500	7.360
.160	22.607	.360	16.332	.560	13.201	.760	11.202	2.600	7.044
.165	22.360	.365	16.231	.565	13.141	.765	11.161	2.700	6.755
.170	22.120	.370	16.131	.570	13.081	.770	11.120	2.800	6.490
.175	21.888	.375	16.033	.575	13.022	.775	11.079	2.900	6.246
.180	21.664	.380	15.936	.580	12.964	.780	11.039	3.000	6.021
.185	21.446	.385	15.841	.585	12.906	.785	10.999	3.500	5.105
.190	21.234	.390	15.747	.590	12.849	.790	10.960	4.000	4.437
.195	21.028	.395	15.654	.595	12.792	.795	10.920	4.500	3.926
.200	20.828	.400	15.563	.600	12.736	.800	10.881	5.000	3.522

$$R.L.=20 \log_{10} \frac{V.S.W.R.+1}{V.S.W.R.-1}$$

$$V.S.W.R.=\frac{10^{\frac{R.L}{20}}+1}{10^{\frac{R.L}{20}}-1}$$

●R.L:Return Loss (dB)

●V.S.W.R.:Voltage Standing Wave Ratio

X.FL	超小型プレス同軸	
W.FL2		
W.FL		
N.FL		
U.FL		
E.FL		
H.FL		
FL		
MS-180		同軸スイッチ
MS-156C		
MS-162B		
MS-151NB		
1.85mm	ミリ波帯対応部品	
2.4mm		
2.92mm		
SMPM		
SMP		
MMCX		マイクロ波帯対応部品
N		
BNC		
TNC		
HRM(SMA)		
N.UM(SMB)		
UM	小型同軸	
MSS		
PO6		
POB		
POD		
POD1		
PO51M_82M_21M	フラグワン	
PO51_PO72		
MRF14		
COMPONENT	75Ω系	
BNC75		
H.FL75		
PL71		
PL75		
PL76		
NF		
変換アダプタ		
結線工具		
変換表		

■デシベル表

dB	Power Ratio		Current Ratio		dB	Power Ratio		Current Ratio	
	Gain	Loss	Gain	Loss		Gain	Loss	Gain	Loss
0.1	1.023	.977	1.015	.990	6.0	3.98	.251	1.995	.501
0.2	1.047	.955	1.023	.977	6.1	4.07	.246	2.009	.496
0.3	1.072	.933	1.035	.967	6.2	4.17	.240	2.04	.490
0.4	1.096	.912	1.047	.955	6.3	4.27	.234	2.06	.485
0.5	1.122	.891	1.059	.945	6.4	4.37	.229	2.09	.479
0.6	1.148	.871	1.072	.933	6.5	4.47	.224	2.11	.474
0.7	1.175	.851	1.083	.924	6.6	4.57	.219	2.14	.468
0.8	1.202	.832	1.096	.912	6.7	4.68	.214	2.16	.463
0.9	1.230	.813	1.109	.903	6.8	4.79	.209	2.19	.457
1.0	1.259	.794	1.122	.891	6.9	4.90	.204	2.21	.452
1.1	1.288	.776	1.134	.882	7.0	5.01	.200	2.24	.447
1.2	1.318	.759	1.148	.871	7.1	5.13	.195	2.26	.442
1.3	1.349	.741	1.160	.862	7.2	5.25	.191	2.29	.437
1.4	1.380	.724	1.175	.851	7.3	5.37	.186	2.32	.432
1.5	1.413	.708	1.188	.843	7.4	5.50	.182	2.34	.427
1.6	1.445	.692	1.202	.832	7.5	5.62	.178	2.37	.422
1.7	1.479	.676	1.215	.823	7.6	5.75	.174	2.40	.417
1.8	1.514	.661	1.230	.813	7.7	5.89	.170	2.42	.412
1.9	1.549	.645	1.243	.805	7.8	6.03	.166	2.45	.407
2.0	1.585	.631	1.259	.794	7.9	6.17	.162	2.48	.403
2.1	1.622	.617	1.272	.786	8.0	6.31	.159	2.51	.398
2.2	1.660	.603	1.288	.776	8.1	6.46	.155	2.54	.394
2.3	1.698	.589	1.302	.768	8.2	6.61	.151	2.57	.388
2.4	1.738	.575	1.318	.755	8.3	6.76	.148	2.60	.385
2.5	1.778	.562	1.331	.751	8.4	6.92	.145	2.63	.380
2.6	1.820	.550	1.349	.741	8.5	7.08	.141	2.66	.376
2.7	1.862	.537	1.363	.734	8.6	7.24	.138	2.69	.372
2.8	1.905	.525	1.380	.724	8.7	7.41	.135	2.72	.368
2.9	1.950	.513	1.395	.717	8.8	7.59	.132	2.75	.363
3.0	1.995	.501	1.413	.708	8.9	7.76	.129	2.78	.359
3.1	2.04	.490	1.428	.701	9.0	7.94	.126	2.82	.355
3.2	2.09	.479	1.445	.692	9.1	8.13	.123	2.85	.351
3.3	2.14	.468	1.462	.685	9.2	8.32	.120	2.88	.347
3.4	2.19	.457	1.479	.676	9.3	8.51	.118	2.91	.343
3.5	2.24	.447	1.493	.670	9.4	8.71	.115	2.95	.339
3.6	2.29	.437	1.514	.661	9.5	8.91	.112	2.98	.335
3.7	2.34	.427	1.525	.654	9.6	9.12	.110	3.02	.331
3.8	2.40	.417	1.543	.645	9.7	9.33	.107	3.05	.328
3.9	2.46	.407	1.564	.640	9.8	9.55	.105	3.09	.324
4.0	2.51	.398	1.585	.631	9.9	9.77	.102	3.12	.320
4.1	2.57	.389	1.600	.625	10.0	10.0	.100	3.16	.316
4.2	2.63	.380	1.622	.617	11.0	12.6	.0794	3.55	.282
4.3	2.69	.372	1.640	.610	12.0	15.9	.063	3.98	.251
4.4	2.75	.363	1.660	.603	13.0	20.0	.0501	4.47	.224
4.5	2.82	.355	1.677	.597	14.0	25.1	.0398	5.01	.200
4.6	2.88	.347	1.698	.589	15.0	31.6	.0316	5.62	.176
4.7	2.95	.339	1.716	.583	16.0	39.8	.0251	6.31	.158
4.8	3.02	.331	1.738	.575	17.0	50.1	.0200	7.08	.142
4.9	3.09	.324	1.755	.570	18.0	63.1	.0159	7.94	.126
5.0	3.16	.316	1.778	.562	19.0	79.4	.0126	8.91	.112
5.1	3.24	.309	1.798	.556	20.0	100.	.01	10.00	.100
5.2	3.31	.302	1.820	.550	25.0	316.	.00316	17.80	.0562
5.3	3.39	.295	1.840	.544	30.0	1000.	.001	31.6	.0316
5.4	3.47	.288	1.862	.537	35.0	3160.	.000316	56.2	.0178
5.5	3.55	.282	1.883	.531	40.0	10000.	.0001	100.	.0100
5.6	3.63	.275	1.906	.525	45.0	31600.	.000031	178.	.00562
5.7	3.72	.269	1.926	.519	50.0	100000.	.00001	316.	.00316
5.8	3.80	.263	1.950	.513	55.0	316000.	.000003	562.	.00178
5.9	3.89	.257	1.970	.507	60.0	1000000.	.000001	1000.	.00100

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- PO51M_82M_21M
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