HybriX® 3dB & DIRECTIONAL COUPLERS

Multi-Layer PTFE offers competitive performance and cost
Our new LTCC offers smaller size and/or higher power performance

- Low insertion loss and high isolation
- Improved phase and amplitude balance
- The broadest SMT coupler offering from 64 MHz to 6 GHz
- Custom designs or any common industry footprint

PTFE 3dB Hybrids

Part Number	Frequency [MHz]	Power Rating [watts]	Insertion loss [dB Max]	Amplitude Balance [+/-dB max]	VSWR [Max]
HEAF	150-175	200	0.3	0.25	1.2
HSBF	470-860	200	0.25	0.4	1.3
HDT2F	690-910	200	0.25	0.2	1.17
HDV2F	700-1000	200	0.24	0.38	1.21
HPD2F	800-1000	25	0.45	0.35	1.4
HDD2F	810-1000	200	0.15	0.3	1.15
HMD2F	815-960	100	0.22	0.2	1.2
HMJ2F	1700-2000	100	0.12	0.2	1.14
HPJ2F	1700-2000	45	0.2	0.4	1.22
HML2F	2000-2300	100	0.11	0.2	1.12
HPL2F	2000-2300	45	0.22	0.3	1.22
HMP2F	2300-2700	80	0.11	0.15	1.17
HPP2F	2300-2700	35	0.21	0.3	1.23
HMQ	2700-3200	200	0.14	0.35	1.25
HMR	3400-3600	200	0.14	0.35	1.2
HUU2F	5000-6000	25	0.22	0.25	1.18

Other package sizes available upon request

Wideband Hybrids

Part Number	Frequency [MHz]	Power Rating [watts]	Insertion loss [dB Max]	Amplitude Balance [+/-dB max]	VSWR [Max]	Size mm
WH0825F	800-2500	150	0.48	0.65	1.38	55.8 x 12.7

HYBRID COUPLER PART NUMBERING SCHEME

HPD2F

- **RoHS Compliant**
- **Family Code:**
  - **Blank: Multi-layer PTFE internal vias**
  - **2: Multi-layer PTFE castellated vias**
  - **3: LTCC**
- **Frequency Band** See Table 2
- **Size Code** See Table 1
- **H = Hybrid 90°**
- **W = Wideband Hybrid**

Table 1: Size Code

A	1.000 x 0.500 in	25.40 x 12.70 mm
S	0.650 x 0.480 in	16.51x 12.19 mm
M	0.560 x 0.200 in	14.22 x 5.08 mm
D	0.560 x 0.350 in	14.22 x 8.89 mm
L	1.340 x 0.670 in	34.04 x 17.02 mm
P	0.250 x 0.200 in	6.35 x 5.08 mm
F	0.236 x 0.118 in	6.00 x 3.00 mm
E	1.000 x 1.000 in	25.40 x 25.40 mm
U	0.400 x 0.200 in	10.16 x 5.08 mm

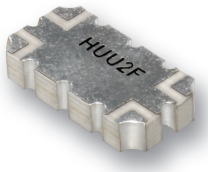

Table 2: Frequency Codes (GHz)

A	0.15-0.25
B	0.47-0.86
C	0.38-0.52
D	0.81-0.96
E	1.0-2.0
F	0.96-1.22
G	1.4-1.7
H	1.5-2.0
I	4.3-4.7
J	1.7-2.0
K	1.9-2.2
L	2.0-2.3
M	2.0-2.5
N	2.0-2.7
O	2.4-2.8
P	2.3-2.7
Q	2.7-3.2
R	3.4-3.6
S	2.0-4.0
T	0.69-0.91
U	5.0-6.0
V	0.7-1.0