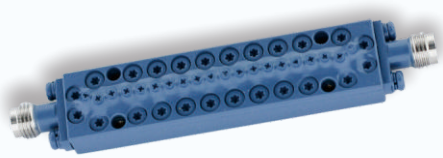
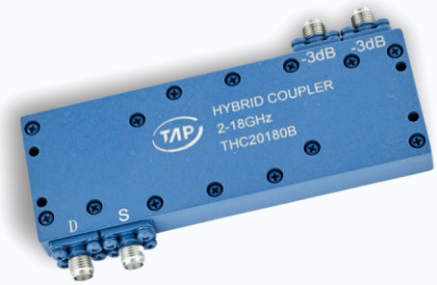
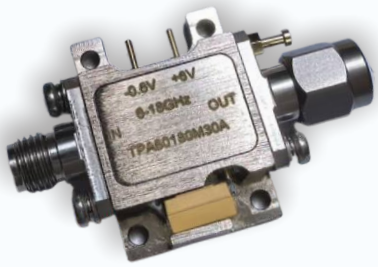
A reliable source for RF components

TAP MICROWAVE

PRODUCT CATALOG







TAP MW CO., LTD Tel:+86.28.8460.2271 Email: info@ tapmicrowave.com www.tapmicrowave.com

ABOUT US

TAP Microwave — Your Trusted Partner in High-Performance RF Component Design and Manufacturing.

We provide reliable products worldwide, including 0.1-67 GHz monopulse comparator, power divider, directional coupler, hybrid coupler, pick-off tee, bias tee, filter, Amplifier, and LNA. Our products are typically applied in satellite communication base stations, network relays, military and defense equipment, and measurement and testing systems.

“Response within 8 hours” is our service motto and a key pillar of our quality and success. We are committed to delivering the highest level of product quality to our customers.

In-house control of all manufacturing processes ensures compliance with the ISO 9001:2015 quality management system standard. From the moment your order is placed to when it ships, we minimize production delays.

TAP Microwave has strong independent research and development (R&D) capabilities and continues to improve and refine its offerings with unique advantages. Our R&D division constantly evaluates new materials, plating techniques, and manufacturing processes to deliver the highest-performing components available.

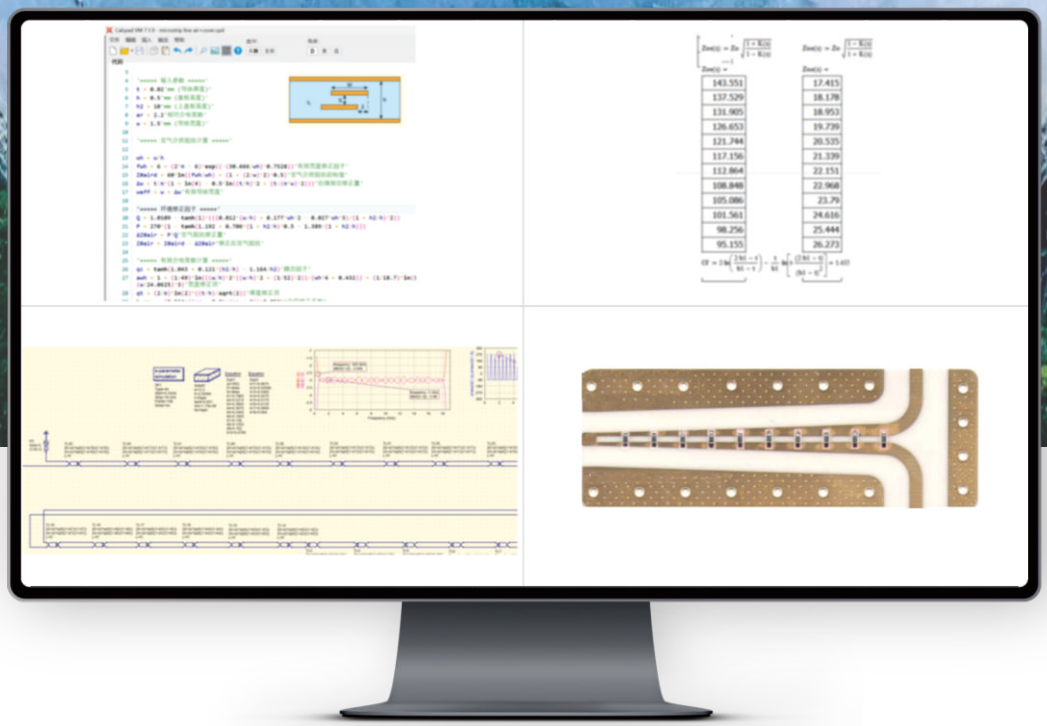
Three-Year Free Warranty! We proudly offer a three-year free warranty on all our reliable, China-made passive components. The quality and consistency of our products have made TAP a trusted primary supplier for ODMs and carriers.

We believe that honesty is the foundation of business. That’s why we consistently deliver high-quality products on time and support you in achieving lasting business success.

CUSTOMIZED DESIGN

Customized solutions for customers are available.

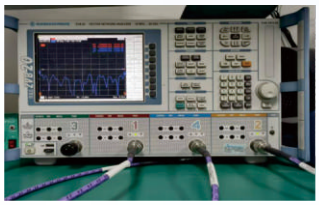
Using a custom-developed program alongside low-loss printed circuit boards, we systematically generated comprehensive datasets detailing impedance, coupling coefficients, and related parameters across various combinations of standard material thicknesses. This enables rapid data retrieval, allowing us to determine precise physical dimensions for diverse ultra-wideband products within just two hours.



Innovation shapes TAP Microwave's future

MANUFACTURING FACILITIES DISPLAY

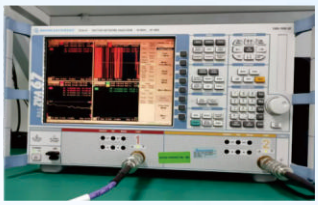
- Vector Network Analyzer



20GHz

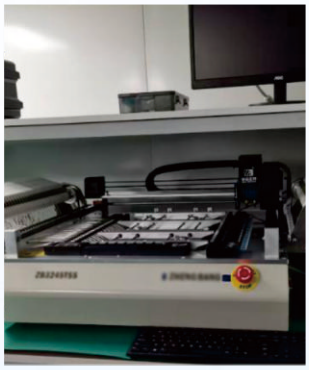
40GHz

50GHz

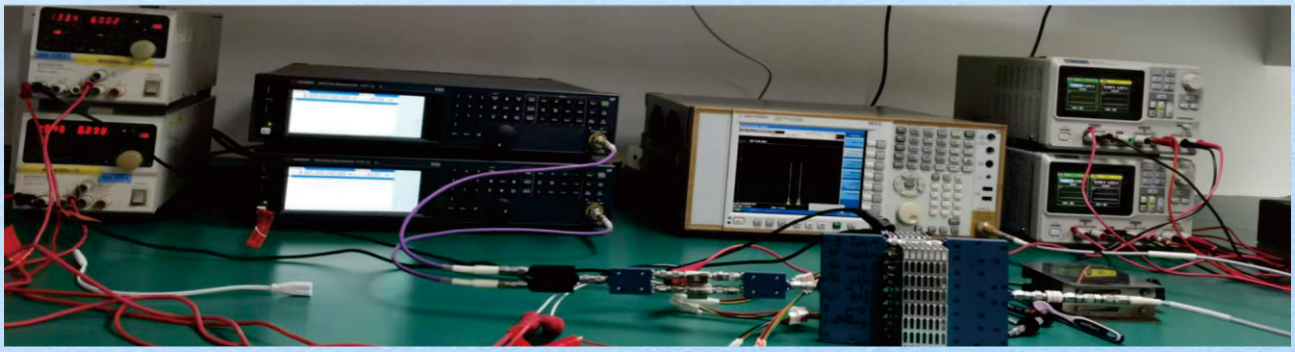


67GHz

- Chip Mounter
- Tin Spraying Machine
- High And Low Temperature Test Chamber



- IMD Test Sets



QUALITY CERTIFICATION

ZTC 中泰认证

QUALITY MANAGEMENT SYSTEM CERTIFICATE

Certificate No: 29024Q11512-0SR0S

TAP MW CO., LTD

Unified Social Credit Code:91510112MA62NR8Q2K

Registered Address:No.1, 1st Floor, Building 65, Yuyuan Dahu District, No. 900 Yidu Middle Road, Longquan Street, Longquanyi District, Chengdu City, Sichuan Province

Office Address:1113, Building 4, Poly Yunshang Xingyun Hui, No. 577 Hu'an South Road, Longquanyi District, Chengdu City, Sichuan Province

Business Address:1113, Building 4, Poly Yunshang Xingyun Hui, No. 577 Hu'an South Road, Longquanyi District, Chengdu City, Sichuan Province

has been established the quality management system meeting the requirements of standard

GB/T 19001-2016 idt ISO 9001:2015

The certificate is valid to the following scope

Sales of electronic components (including exports)

Date of Initial Issue: 22-05-2024

Date of Issue: 22-05-2024

Date of Expiry: 21-05-2027

Approval of the first surveillance audit	Approval of the second surveillance audit	Approval of the third surveillance audit

(This certificate shall be subject to supervision and audit at least once per year within the validity period, and shall be valid only when passed supervision qualified items)

Issuer:

The validity and applicability of this certificate can be found on the official website of Zhongtai Union Certification official website at www.ztcc.cn or call the Registration Department of Zhongtai Union Certification. Information about this certificate can also be found on the official website of Certification and Accreditation Administration of the PRC (www.cnca.gov.cn).

Office Building No. 1, No. 2, Baoan Road, Second section, East Third Ring Road, Chenghua District, Chengdu, Sichuan, China

ZhongTai Union Certification Co., LTD.

Tel: +86 028-62521000 www.ztcc.cn

0066458

NTS

NOWD Testing Services Co., Ltd.

TEL: +86-755-2783 0065 FAX: +86-755-2783 0095

ADD: 5A, Building 29B, Yintian Industrial Zone, Yantian Community, Xiexing Street, Baoan District, Shenzhen, China

Email: nowd@nowd.com.cn

Web: http://www.nowd.com.cn

Verification of Compliance

Reference No. : NTS2404173

Report No. : NTS2404173R

Applicant : TAP MW CO.,LTD
65-1-1 No. 900 Longquan Street Yidu Road Longquanyi District
Chengdu City 610000 Sichuan Province CHINA

Manufacturer : TAP MW CO.,LTD
65-1-1 No. 900 Longquan Street Yidu Road Longquanyi District
Chengdu City 610000 Sichuan Province CHINA

Product : hybrid coupler

Model No. : THC20180A

Trade Mark : N/A

The submitted sample of the above equipment has been tested for CE marking according to the following European Directives:

RoHS Directive: 2011/65/EU & 2015/863/EU

Standard(s) used for showing compliance with the essential requirements in the specified directive(s):

Test Standards IEC 62321-1: 2013; IEC 62321-3-1: 2013; IEC 62321-4: 2013+A1: 2017; IEC 62321-5: 2013; IEC 62321-6: 2015; IEC 62321-7-1: 2015; IEC 62321-7-2: 2017; IEC 62321-8: 2017

The statement is based on a single evaluation of one sample of above mentioned products. It does not imply an assessment of the whole production.

The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report. The applicant should hold the whole technical report at disposal of the competent all the right.

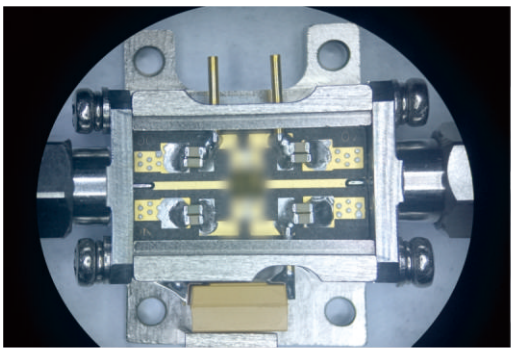
Signed for and on behalf of
NOWD Testing Services Co., Ltd.

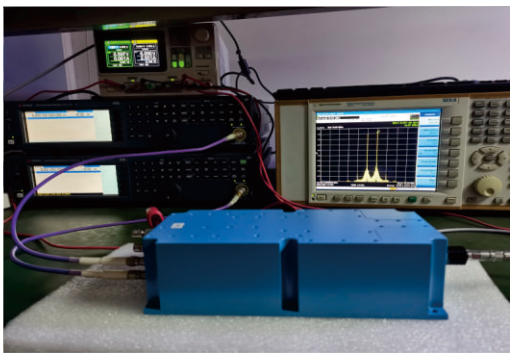
RoHS

NOWD TESTING SERVICES CO.,LTD. NTS CERTIFICATION

Jonnnes
Technical Manager
Date: April 29, 2024

PRODUCTION/TESTING





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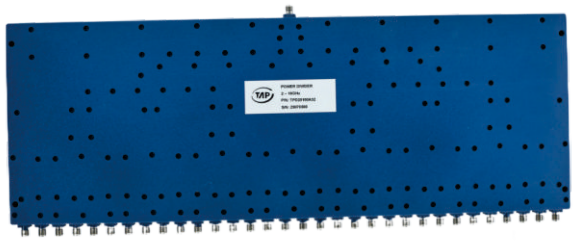
POWER DIVIDER

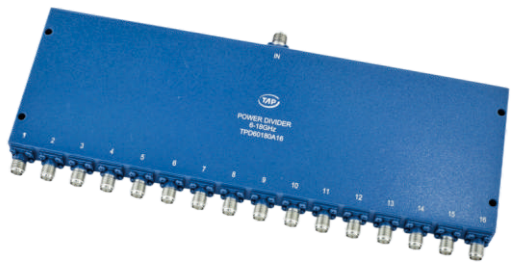


TPD20180A32

Frequency Range	2~18GHz
Insertion Loss	≤6.0dB(Above 15.05dB Split)
VSWR	Input ≤1.90:1 Output ≤1.60:1
Isolation	≥15dB
Amplitude Balance	≤±1.2dB
Phase Balance	≤±14°
Power Handling	Forward ≤30Watt; Reversed ≤1Watt
Impedance	50Ω
Port Connectors	SMA-Female

TPD20180A16

Frequency Range	2~18GHz
Insertion Loss	≤3.6dB(Above 12.04dB Split)
VSWR	Input ≤1.80:1 Output ≤1.60:1
Isolation	≥16dB
Amplitude Balance	≤±1dB
Phase Balance	≤±8°
Power Handling	Forward ≤30Watt; Reversed ≤1Watt
Impedance	50Ω
Port Connectors	SMA-Female



TPD60180A16

Frequency Range	6~18GHz
Insertion Loss	≤2.0dB(Above 12.04dB Split)
VSWR	Input ≤1.60:1 Output ≤1.50:1
Isolation	≥17dB
Amplitude Balance	≤±0.8dB
Phase Balance	≤±10°
Power Handling	Forward ≤30Watt; Reversed ≤1Watt
Impedance	50Ω
Port Connectors	SMA-Female

Frequency Range	10~67GHz
Insertion Loss	≤10dB(Above 6.02dB Split)
VSWR	Input ≤2.50:1 Output ≤2.00:1
Isolation	≥8dB
Amplitude Balance	≤±1.5dB
Phase Balance	≤±15°
Power Handling	Forward ≤10Watt; Reversed ≤0.5Watt
Impedance	50Ω
Port Connectors	1.85mm-Female

TPD100670A8

Frequency Range	2~18GHz
Insertion Loss	≤2.4dB(Above 9.03dB Split)
VSWR	Input ≤1.70:1 Output ≤1.50:1
Isolation	≥17dB
Amplitude Balance	≤±0.6dB
Phase Balance	≤±8°
Power Handling	Forward ≤30Watt; Reversed ≤1Watt
Impedance	50Ω
Port Connectors	SMA-Female

TPD20180A8

Frequency Range	2~8GHz
Insertion Loss	≤2.8dB(Above 10.79dB Split)
VSWR	Input ≤1.80:1 Output ≤1.80:1
Isolation	≥16dB
Amplitude Balance	≤±1.0dB
Phase Balance	≤±5°
Power Handling	Forward ≤30Watt; Reversed ≤1Watt
Impedance	50Ω
Port Connectors	SMA-Female

TPD2080A12X

POWER DIVIDER

TPD0280A2

Frequency Range	0.2~8.0GHz
Insertion Loss	≤2.0dB(Above 3.01dB Split)
VSWR	Input ≤1.60:1 Output ≤1.40:1
Isolation	≥14dB
Amplitude Balance	≤±0.5dB
Phase Balance	≤±5°
Power Handling	Forward ≤30Watt; Reversed ≤1Watt
Impedance	50Ω
Port Connectors	SMA-Female

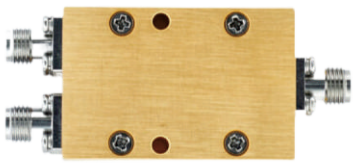
TPD10500A4

Frequency Range	1~50GHz
Insertion Loss	≤8.0dB(Above 6.02dB Split)
VSWR	Input ≤1.90:1 Output ≤1.80:1
Isolation	≥14dB
Amplitude Balance	≤±1.0dB
Phase Balance	≤±12°
Power Handling	Forward ≤10Watt; Reversed ≤1Watt
Impedance	50Ω
Port Connectors	2.4mm-Female

TPD100670A4

Frequency Range	10~67GHz
Insertion Loss	≤6.2dB (Above 6.02dB Split)
VSWR	Input ≤2.50:1 Output ≤2.00:1
Isolation	≥8dB
Amplitude Balance	≤±1.5dB
Phase Balance	≤±15°
Power Handling	Forward ≤10Watt; Reversed ≤0.5Watt
Impedance	50Ω
Port Connectors	1.85mm-Female

Frequency Range	2~8GHz
Insertion Loss	≤0.6dB(Above 3.01dB Split)
VSWR	Input ≤1.30:1 Output ≤1.20:1
Isolation	≥20dB
Amplitude Balance	≤±0.2dB
Phase Balance	≤±2°
Power Handling	Forward ≤30Watt; Reversed ≤1Watt
Impedance	50Ω
Port Connectors	SMA-Female



TPD2080A2CA

Frequency Range	1~40GHz
Insertion Loss	≤2.6dB(Above 3.01dB Split)
VSWR	Input ≤1.55:1 Output ≤1.50:1
Isolation	≥16dB
Amplitude Balance	≤±0.5dB
Phase Balance	≤±5°
Power Handling	Forward ≤10Watt; Reversed ≤0.5Watt
Impedance	50Ω
Port Connectors	2.92mm-Female

TPD10400A2

Frequency Range	2~40GHz
Insertion Loss	≤1.8dB(Above 3.01dB Split)
VSWR	Input ≤1.60:1 Output ≤1.50:1
Isolation	≥16dB
Amplitude Balance	≤±0.5dB
Phase Balance	≤±5°
Power Handling	Forward ≤20Watt; Reversed ≤1Watt
Impedance	50Ω
Port Connectors	2.92mm-Female

TPD20400A2

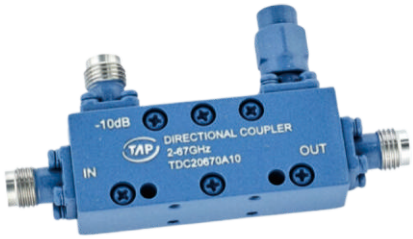
DIRECTIONAL COUPLER

TDC04670A11

Frequency Range	0.4~67GHz
Insertion Loss	⩽5.5dB (Excl. Coupling Loss 0.36dB)
Coupling Factor	⩽11±1.0dB
Freq. Sensitivity	⩽±1.6dB
Directivity	⩾6dB
VSWR	Primary ⩽2.00:1 Secondary ⩽2.20:1
Power Handling	Forward ⩽5Watt; Peak ⩽3K Watt
Impedance	50Ω
Port Connectors	1.85mm-Female

TDC0580H40

Frequency Range	0.5~8.0GHz
Insertion Loss	⩽0.5dB (Excl. Coupling Loss 0.01dB)
Coupling Factor	⩽40±1.5dB
Freq. Sensitivity	⩽±1.8dB
Directivity	⩾10dB
VSWR	⩽1.50:1
Power Handling	Forward ⩽200Watt; Peak ⩽3K Watt
Impedance	50Ω
Port Connectors	N-Female



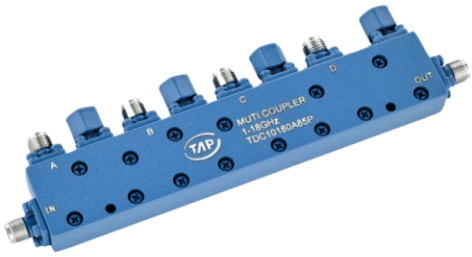
TDC20670A10

Frequency Range	2~67GHz
Insertion Loss	⩽2.8dB (Excl. Coupling Loss 0.46dB)
Coupling Factor	⩽10±1.0dB
Freq. Sensitivity	⩽±1.2dB
Directivity	⩾8dB
VSWR	Primary ⩽2.00:1 Secondary ⩽2.20:1
Power Handling	Forward ⩽5Watt; Peak ⩽3K Watt
Impedance	50Ω
Port Connectors	1.85mm-Female

Frequency Range	0.5~18GHz
Insertion Loss	≤1.2dB (Excl. Coupling Loss 0.01dB)
Coupling Factor	≤30±1.5dB
Freq. Sensitivity	≤±1.5dB
Directivity	≥8dB
VSWR	Primary ≤1.50:1 Secondary ≤1.60:1
Power Handling	Forward ≤50Watt; Peak ≤3K Watt
Impedance	50Ω
Port Connectors	N-Female

TDC05180N30

Frequency Range	IN-OUT: 1-18GHz A: 14-18GHz B: 11-15GHz C: 7-12GHz D: 4-8GHz
Insertion Loss	≤6.5dB
Coupling Factor	≤8.5±0.5dB@IN To Port A,B,C,D
Freq. Sensitivity	≤±0.5dB
Directivity	≥10dB
VSWR	Primary ≤1.55:1 Secondary ≤1.55:1
Power Handling	Forward ≤10Watt; Peak ≤3K Watt
Impedance	50Ω
Port Connectors	SMA-Female



TDC10180A85P

Frequency Range	0.2~52.7GHz
Insertion Loss	≤7.5dB (Excl. Coupling Loss 0.36dB)
Coupling Factor	≤11±1.0dB
Freq. Sensitivity	≤±2.5dB
Directivity	≥3dB
VSWR	Primary ≤2.00:1 Secondary ≤2.00:1
Power Handling	Forward ≤5Watt; Peak ≤3K Watt
Impedance	50Ω
Port Connectors	1.85mm-Female

TDC02527A11

HYBRID COUPLER

THC05180A

Frequency Range	0.5~18GHz
Nominal Split	3.01dB
Insertion Loss	≤3.2dB
Isolation	≥16dB
Amplitude Balance	≤±1.0dB
Phase Balance	≤±10°
VSWR	≤1.60:1
Power Handling	Average ≤20Watt Peak ≤0.5KW
Impedance	50Ω
Port Connectors	SMA-Female

THC20400A

Frequency Range	2~40GHz
Nominal Split	3.01dB
Insertion Loss	≤1.8dB
Isolation	≥16dB
Amplitude Balance	≤±1.2dB@2.0-2.2GHz ≤±1.0dB@2.2-40GHz
Phase Balance	≤±10°
VSWR	≤1.50:1
Power Handling	Average ≤10Watt Peak ≤1KW
Impedance	50Ω
Port Connectors	2.92mm-Female

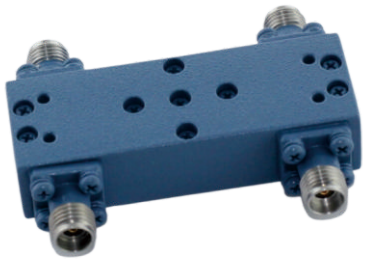
THC40400A

Frequency Range	4~40GHz
Nominal Split	3.01dB
Insertion Loss	≤1.8dB
Isolation	≥14dB
Amplitude Balance	≤±0.7dB
Phase Balance	≤±10°
VSWR	≤1.60:1
Power Handling	Average ≤10Watt Peak ≤1KW
Impedance	50Ω
Port Connectors	2.92mm-Female

Frequency Range	2~18GHz
Nominal Split	3.01dB
Insertion Loss	≤2.5dB
Isolation	≥18dB
Amplitude Balance	≤±0.8dB
Phase Balance	≤±14°
VSWR	≤1.60:1
Power Handling	Average ≤50Watt Peak ≤1KW
Impedance	50Ω
Port Connectors	SMA-Female

THC20180B

Frequency Range	2~18GHz
Nominal Split	3.01dB
Insertion Loss	≤1.2dB
Isolation	≥18dB
Amplitude Balance	≤±0.5dB
Phase Balance	≤±5°
VSWR	≤1.40:1
Power Handling	Average ≤50Watt Peak ≤1KW
Impedance	50Ω
Port Connectors	SMA-Female

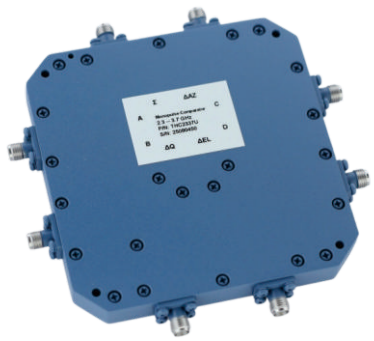


THC20180A

Frequency Range	6~18GHz
Nominal Split	3.01dB
Insertion Loss	≤0.8dB
Isolation	≥16dB
Amplitude Balance	≤±0.5dB
Phase Balance	≤±5°
VSWR	≤1.40:1
Power Handling	Average ≤30Watt Peak ≤1000W
Impedance	50Ω
Port Connectors	SMA-Female

THC20265A

MONOPULSE COMPARATOR



THC1020U

Frequency Range	1~2GHZ
Nominal Split	6.02dB
Isolation	⩾23dB
Amplitude Balance	⩽±1dB
Phase Balance	⩽±5°
VSWR	⩽1.30:1
Power Handling	Average ⩽50Watt Peak ⩽1KW
Impedance	50Ω
Port Connectors	SMA-Female

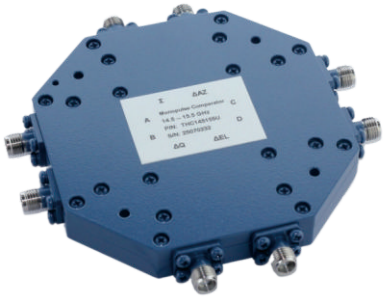
THC2040U

Frequency Range	2~4GHZ
Nominal Split	6.02dB
Isolation	⩾20dB
Amplitude Balance	⩽±1dB
Phase Balance	⩽±8°
VSWR	⩽1.30:1
Power Handling	Average ⩽50Watt Peak ⩽1KW
Impedance	50Ω
Port Connectors	SMA-Female

THC4080U

Frequency Range	4~8GHZ
Nominal Split	6.02dB
Isolation	⩾20dB
Amplitude Balance	⩽±1dB
Phase Balance	⩽±5°
VSWR	⩽1.50:1
Power Handling	Average ⩽50Watt Peak ⩽1KW
Impedance	50Ω
Port Connectors	SMA-Female

Frequency Range	8~12GHZ
Nominal Split	6.02dB
Isolation	⩾18dB
Amplitude Balance	⩽±1dB
Phase Balance	⩽±10°
VSWR	⩽1.60:1
Power Handling	Average ⩽30Watt Peak ⩽1KW
Impedance	50Ω
Port Connectors	SMA-Female



THC80120U

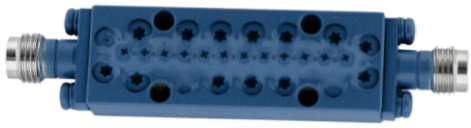
Frequency Range	12~18GHZ
Nominal Split	6.02dB
Isolation	⩾18dB
Amplitude Balance	⩽±1dB
Phase Balance	⩽±10°
VSWR	⩽1.60:1
Power Handling	Average ⩽50Watt Peak ⩽1KW
Impedance	50Ω
Port Connectors	SMA-Female

THC120180U

Frequency Range	27~32GHz
Nominal Split	6.02dB
Isolation	⩾16dB
Amplitude Balance	⩽±2.0dB
Phase Balance	⩽±20°
VSWR	⩽2.20:1
Power Handling	Average ⩽50Watt Peak ⩽1KW
Impedance	50Ω
Port Connectors	2.92mm-Female

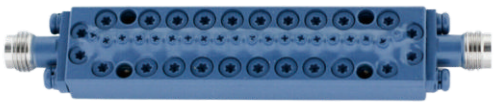
THC270320U

FILTER



Bandpass Filter TBF240428A

Center Frequency (F0)	58.5GHz
Freq. Bandwidth	57～60GHz
Pass Band Insertion Loss	≤1.8dB
Pass Band Ripple	≤0.5dB
VSWR	≤1.40:1
Stop Band Rejection	≥80dB @ DC ~ 54.85GHz ≥45dB @ 54.85 ~ 55.75GHz ≥45dB @ 61.3 ~ 62.4GHz ≥80dB @ 62.4 ~ 70GHz
Impedance	50 ohms
Power Handling	CW:≤5W
Connectors	1.85mm-Female
Surface Finish	Blue Paint



Bandpass Filter TBF241024A

Center Frequency (F0)	33GHz
Freq. Bandwidth	26～40GHz
Pass Band Insertion Loss	≤1.2dB
Pass Band Ripple	≤0.5dB
VSWR	≤1.40:1
Stop Band Rejection	≥80dB @ DC ~ 23.7GHz ≥32dB @ 41 ~ 42.3GHz ≥38dB @ 23.7 ~ 25GHz ≥80dB @ 42.3 ~ 58GHz
Impedance	50 ohms
Power Handling	CW:≤5W
Connectors	2.92mm-Female
Surface Finish	Blue Paint

Bandpass Filter TBF250709A

Center Frequency (F0)	40GHz
Freq. Bandwidth	30～50GHz
Pass Band Insertion Loss	≤1.2dB
Pass Band Ripple	≤0.5dB
VSWR	≤1.60:1
Stop Band Rejection	≥80dB @DC~27.7GHz ≥50dB @27.7~28.5GHz ≥50dB @52.8 ~ 57GHz
Impedance	50 ohms
Power Handling	CW:≤5W
Connectors	2.4mm-Female
Surface Finish	Blue Paint

Cut Off Frequency	18GHz
Pass Band Frequency	18 ~ 46GHz
Pass Band Insertion Loss	≤2.0dB @ 18 ~ 19.5GHz ≤1.0dB @ 19.5 ~ 42GHz ≤2.0dB @ 42 ~ 46GHz
Pass Band VSWR	≤1.70:1
Stop Band Attenuation	≥60dB @ DC ~ 16.2GHz ≥30dB @ 16.2 ~ 17GHz
Stop Band Rejection	≥80dB @ DC ~ 54.85GHz ≥45dB @ 61.3 ~ 62.4GHz ≥45dB @ 54.85 ~ 55.75GHz ≥80dB @ 62.4 ~ 70GHz
Impedance	50 ohms
Power Handling	CW:≤15W
Connectors	2.92mm-Female
Surface Finish	Blue Paint

Highpass Filter
THF230227A

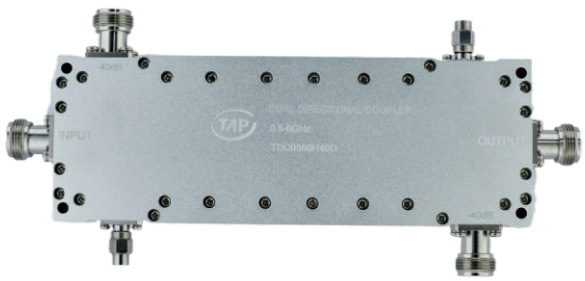
Cut Off Frequency	18GHz
Pass Band Frequency	DC ~ 18GHz
Pass Band Insertion Loss	≤1.0dB @ DC ~ 17.3GHz ≤3.0dB @ 17.3 ~ 18GHz
Pass Band VSWR	≤1.60:1
Stop Band Attenuation	≥50dB @ 19.1 ~ 26GHz
Cut Off Frequency	18GHz
Impedance	50 ohms
Power Handling	CW:≤15W
Connectors	SMA-Female
Surface Finish	Blue Paint

Lowpass Filter
TLF220622A

Stop Band Frequency	6225～7125MHz
Stop Band Attenuation	≥50dB
Pass Band Rejection	DC ~ 6250MHz , 7400 ~ 13000MHz
Pass Band Insertion Loss	≤1.0dB
Pass Band VSWR	≤1.70:1
Impedance	50 ohms
Power Handling	CW:≤10W
Connectors	SMA-Female
Surface Finish	Blue Paint

Notch Filter
TNF241112A

HIGH POWER PRODUCTS



TDC0560H40D

Frequency Range	0.5~6.0GHz
Insertion Loss	≤0.3dB (Excl. Coupling Loss 0.01dB)
Coupling Factor	≤40±1dB
Freq. Sensitivity	≤±1.5dB
Directivity	≥12dB
VSWR	Primary ≤1.30:1 Secondary ≤1.30:1
Power Handling	Forward ≤500Watt; Peak ≤3K Watt
Impedance	50Ω
Port Connectors	N-Female

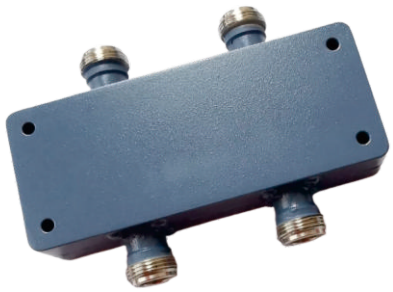
TDC0660DH40MNB

Frequency Range	0.6~6GHz
Insertion Loss	≤0.3dB (Excl. Coupling Loss 0.01dB)
Coupling Factor	≤40±1.0dB
Freq. Sensitivity	≤±2.0dB
Directivity	≥10dB
VSWR	Primary ≤1.40:1 Secondary ≤1.40:1
Power Handling	Forward ≤1000Watt; Peak ≤3K Watt
Impedance	50Ω
Port Connectors	Input:7/16-Male Output:7/16-Female Coupled:N-Female

TDC20180H40

Frequency Range	2~18GHz
Insertion Loss	≤0.5dB (Excl. Coupling Loss 0.01dB)
Coupling Factor	≤40±1.5dB
Freq. Sensitivity	≤±1.5dB
Directivity	≥3dB
VSWR	Primary ≤1.60:1 Secondary ≤1.60:1
Power Handling	Forward ≤300Watt; Peak ≤3K Watt
Impedance	50Ω
Port Connectors	N-Female

Frequency Range	0.95~1.5GHz
Nominal Split	3.01dB
Insertion Loss	≤0.40dB
Isolation	≥20dB
Amplitude Balance	≤±0.4dB
Phase Balance	≤±4°
VSWR	≤1.22:1
Power Handling	Average ≤128Watt Peak ≤2KW
Impedance	50Ω
Shock	20G's, 1/2Sine, 11Ms
Port Connectors	N-Female



THC0915BH

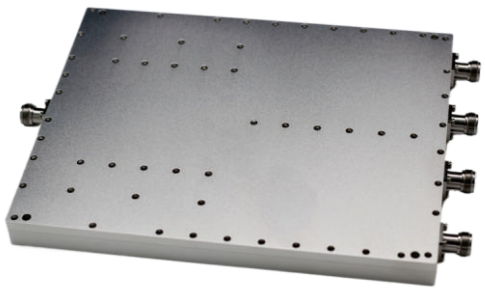
Frequency Range	1600~1700MHz
Nominal Split	3.01dB
Insertion Loss	≤0.25dB
Isolation	≥22dB
Amplitude Balance	≤±0.25dB
Phase Balance	≤±2°
VSWR	≤1.20:1
Power Handling	Average ≤300Watt Peak ≤3KW
Impedance	50Ω
Port Connectors	N-Female

THC1617H

Frequency Range	2~12.4GHz
Nominal Split	3.01dB
Insertion Loss	≤1.2dB
Isolation	≥13dB
Amplitude Balance	≤±0.6dB
Phase Balance	≤±10°
VSWR	≤1.50:1
Power Handling	Average ≤125Watt Peak ≤1KW
Impedance	50Ω
Port Connectors	N-Female

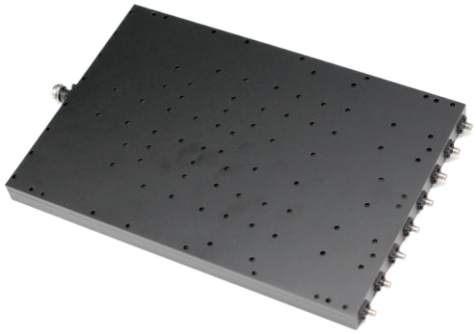
THC20124NH

HIGH POWER PRODUCTS



TPD0405H4C

Frequency Range	400~500MHz
Insertion Loss	≤0.5dB(Above 6.02dB Split)
VSWR	Com ≤1.40:1
Isolation	----------
Amplitude Balance	≤±0.3dB
Phase Balance	≤±3°
Power Handling	≤2000Watt Peak power, duty cycle 20 %
Impedance	50Ω
Port Connectors	N-Female



TPD0418N8HA

Frequency Range	0.4~1.8GHz
Insertion Loss	≤1.5dB@0.6-1.8GHz ≤1.0dB@0.4-0.6GHz (Above 9.03dB Split)
VSWR	Input ≤1.60:1 Output ≤1.40:1
Isolation	≥18dB
Amplitude Balance	≤±0.5dB
Phase Balance	≤±5°
Power Handling	Forward ≤150Watt; Reversed ≤10Watt
Impedance	50Ω
Port Connectors	Input: N-Female Output: SMA-Female

TPD2450H2

Frequency Range	2450MHz
Insertion Loss	≤0.3dB(Above 3.01dB Split)
VSWR	Input ≤1.30:1
Isolation	--------
Amplitude Balance	≤±0.3dB
Phase Balance	≤±3°
Power Handling	≤400Watt
Impedance	50Ω
Port Connectors	N-Female

PICK-OFF TEE

Frequency Range	0.01~40GHz
Insertion Loss	≤3.2dB
Coupling Factor	≤12±1.5dB
Coupling Sensitivity	≤±1.2dB
VSWR	Though ≤1.80:1
Power Handling	Incident ≤1Watt; Reflected ≤1Watt
Impedance	50Ω
Port Connectors	2.92mm-Female

TPT00400A12

Frequency Range	0.01~40GHz
Insertion Loss	≤2.0dB
Coupling Factor	≤15±1.5dB
Coupling Sensitivity	≤±1.6dB
VSWR	Though ≤1.70:1
Power Handling	Incident ≤1Watt; Reflected ≤1Watt
Impedance	50Ω
Port Connectors	2.92mm-Female

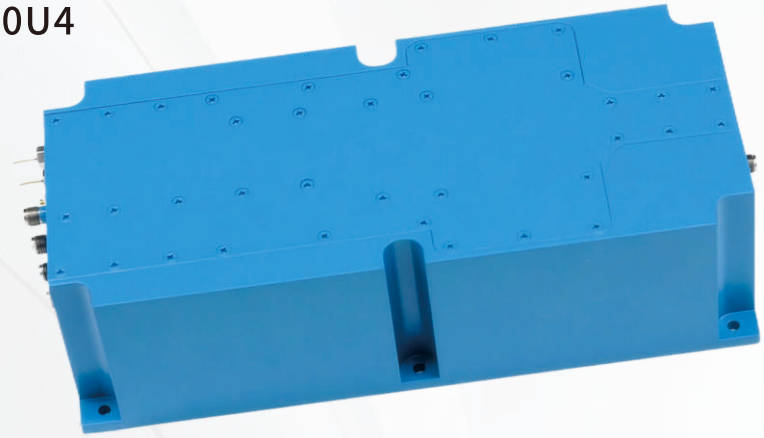
TPT00500A12

Frequency Range	0.01~50GHz
Insertion Loss	≤3.5dB
Coupling Factor	≤12±1.5dB
Coupling Sensitivity	≤±3.0dB
VSWR	Though ≤1.90:1
Power Handling	Incident ≤1Watt; Reflected ≤1Watt
Impedance	50Ω
Port Connectors	Output: 2.4mm-Male Others: 2.4mm-Female

TPT00500A12M

AMPLIFIER

TPA80180AH20U4

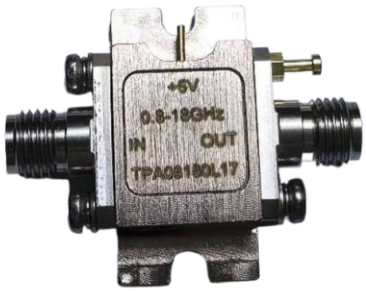


Key parameter characteristics

- Frequency range: 8-18GHz;
- Number of input channels: 4;
- Output P-1 power: ⩾20dBm;
- Output power: ⩾0dBm@2 channels input;
- Gain: ⩾25dB;
- Spurious suppression: ⩾70dBc@ output power;
- Harmonic suppression: ⩾40dBc@ output power;
- Output intermodulation suppression: better than 70dBc@ output power
- Test frequency point: 8,9,10,...18GHz
- Installation heat dissipation requirements: passive heat dissipation, with good ventilation;
- Working temperature range: 0~+45°C;
- Working humidity range: ⩽85% (non-condensation);
- Storage temperature range: -40~+85°C;
- Storage humidity range: ⩽70%;
- Reliability: ⩾20000 hours;
- Safety requirements: low ripple DC power supply, +6V,-0.6V ⩾3A;
- Power consumption: ⩽20W;
- Weight of the whole machine: ⩽3kg

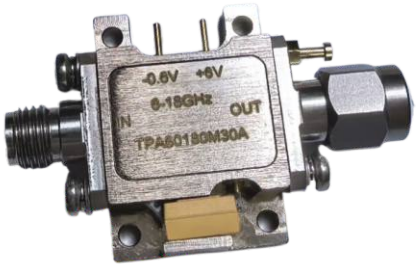
LOW NOISE AMPLIFIER

Frequency Range	0.8~18GHz
Gain	≤13dB
Gain Flatness	≤±2.0dB
Noise Figure	≤1.6dB
VSWR	≤2.50:1
Output 1dB Compression Point (P1dB)	≥17dBm
Saturated Output Power (Psat)	≥18dBm
Isolation S12	≤-20dB



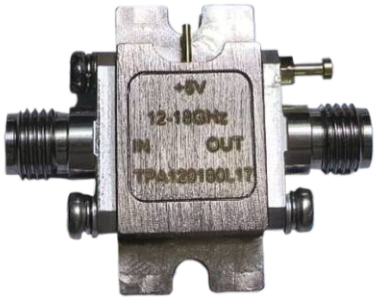
TPA08180L17

Frequency Range	6~18GHz
Gain	≤20dB
Gain Flatness	≤±3.0dB
VSWR	≤2.50:1
Output 1dB Compression Point (P1dB)	≥30dBm
Saturated Output Power (Psat)	≥31dBm
Isolation S12	≤-40dB



TPA60180M30A

Frequency Range	12~18GHz
Gain	≤17dB
Gain Flatness	≤±1.0dB
Noise Figure	≤1.6dB
VSWR	≤2.50:1
Output 1dB Compression Point (P1dB)	≥17dBm
Saturated Output Power (Psat)	≥18dBm
Isolation S12	≤-40dB



TPA120180L17

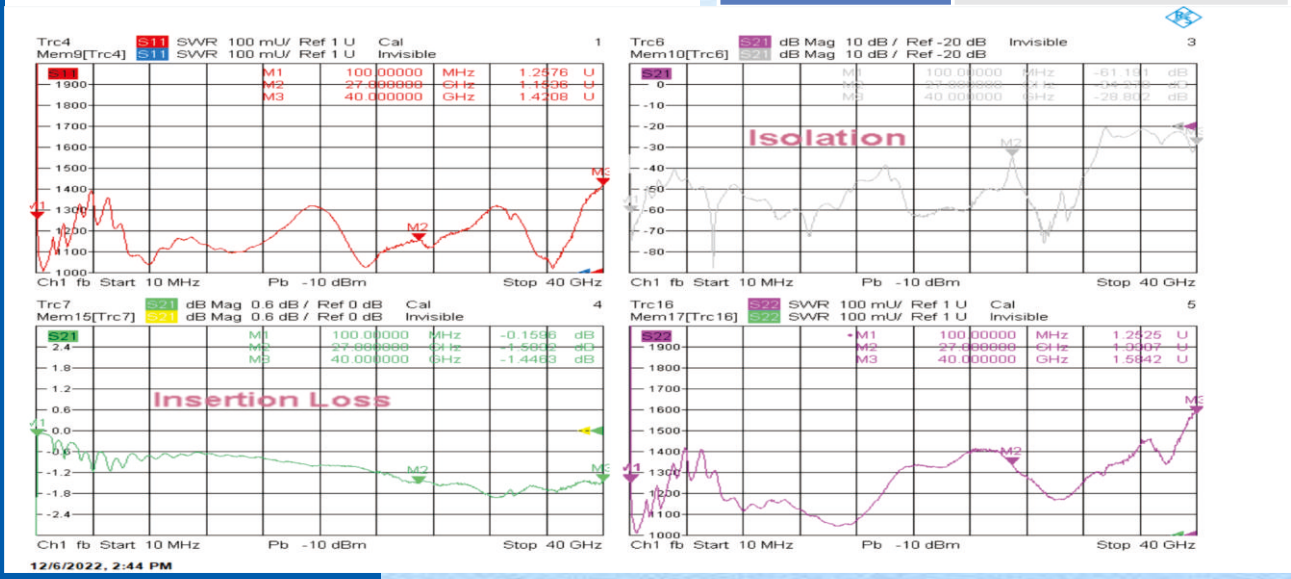
BIAS TEE

TPB01180A04

Frequency Range	0.1~18GHz
Insertion Loss	≤1.2dB
VSWR	Input ≤1.60:1 Output ≤1.60:1
Isolation	≥26dB
Power Handling	Voltage ≤ 12V; Current ≤ 400mA
Impedance	50Ω
Port Connectors	SMA-Female

TPB01400A04

Frequency Range	0.1~40GHz
Insertion Loss	≤2.2dB
VSWR	Input ≤1.80:1 Output ≤1.80:1
Isolation	≥18dB
Power Handling	Voltage ≤ 12V; Current ≤ 400mA
Impedance	50Ω
Port Connectors	2.92mm-Female



Return Loss VS VSWR Table

Return Loss (dB)	Reflective Coefficient (Rho)	V.S.W.R.	Mismatching Loss(dB)	Return Loss (dB)	Reflective Coefficient (Rho)	V.S.W.R.	Mismatching Loss(dB)
∞	0.0000	1.00	0.00	16.00	0.1585	1.38	0.11
50.00	0.0032	1.01	0.00	15.50	0.1679	1.40	0.12
49.00	0.0035	1.01	0.00	15.00	0.1778	1.43	0.14
48.00	0.0040	1.01	0.00	14.50	0.1884	1.46	0.16
47.00	0.0045	1.01	0.00	14.00	0.1995	1.50	0.18
46.00	0.0050	1.01	0.00	13.50	0.2113	54	0.20
45.00	0.0056	1.01	0.00	13.00	0.2239	1.58	0.22
44.00	0.0063	1.01	0.00	12.50	0.2371	1.62	0.25
43.00	0.0071	1.01	0.00	12.00	0.2512	1.67	0.28
42.00	0.0079	1.02	0.00	11.50	0.2661	1.73	0.32
41.00	0.0089	1.02	0.00	11.00	0.2818	1.78	0.36
40.00	0.0100	1.02	0.00	10.50	0.2985	1.85	0.41
39.00	0.0112	1.02	0.00	10.00	0.3162	1.92	0.46
38.00	0.0126	1.03	0.00	9.60	0.3311	1.99	0.50
37.00	0.0141	1.03	0.00	9.20	0.3467	2.06	0.56
36.00	0.0158	1.03	0.00	8.80	0.3631	2.14	0.61
35.00	0.0178	1.04	0.00	8.40	0.3802	2.23	0.68
34.00	0.0200	1.04	0.00	8.00	0.3981	2.32	0.75
33.00	0.0224	1.05	0.00	7.60	0.4169	2.43	0.83
32.00	0.0251	1.05	0.00	7.20	0.4365	2.55	0.92
31.00	0.0282	1.06	0.00	6.80	0.4571	2.68	1.02
30.00	0.0316	1.07	0.00	6.40	0.4786	2.84	1.13
29.00	0.0355	1.07	0.01	6.00	0.5012	3.01	1.26
28.00	0.0398	1.08	0.01	5.60	0.5248	3.21	1.40
27.00	0.0447	1.09	0.01	5.20	0.5495	3.44	1.56
26.00	0.0501	1.11	0.01	4.80	0.5754	3.71	1.75
25.00	0.0562	1.12	0.01	4.40	0.6026	4.03	1.96
24.00	0.0631	1.13	0.02	4.00	0.6310	4.42	2.20
23.00	0.0708	1.15	0.02	3.60	0.6607	4.89	2.49
22.00	0.0794	1.17	0.03	3.20	0.6918	5.49	2.83
21.00	0.0891	1.20	0.03	2.80	0.7244	6.26	3.23
20.00	0.1000	1.22	0.04	2.40	0.7586	7.28	3.72
19.50	0.1059	1.24	0.05	2.00	0.7943	8.72	4.33
19.00	0.1122	1.25	0.06	1.60	0.8318	10.89	5.11
18.50	0.1189	1.27	0.06	1.20	0.8710	14.50	6.17
18.00	0.1259	1.29	0.07	0.80	0.9120	21.73	7.74
17.50	0.1334	1.31	0.08	0.40	0.9550	43.44	10.56
17.00	0.1413	1.33	0.09	0.20	0.9772	86.86	13.47
16.50	0.1496	1.35	0.10	0.00	1.0000	∞	∞

Notes:

1.Return Loss=-20*log(Rhol) 2.Mismatching Loss=-10*log(1-|Rho|^2) 3.V.S.W.R.=(1+|Rhol)/(1-|Rho|)

Innovation shapes TAP Microwave's future

Contact us

Add: No.577, Hu’an South Rd, Dongan Street, Longquanyi , Chengdu, 610100, P.R.CHINA
Tel: +86.28.8460.2271
Fax: +86.28.8843.6591
General Inquiries: info@tapmicrowave.com