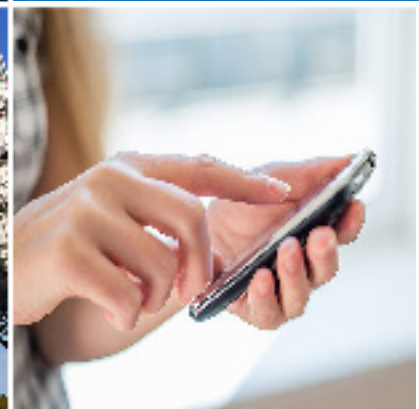


Microwave Products Short Form Catalog



Mixers • Frequency Multipliers • Limiters • Power Dividers

Detectors • Equalizers • Couplers • Amplifiers

Mixer Products

Our selection of RF mixers offer many combinations of frequency bands and LO drive levels and are available in various connectorized modules

IQ Mixers

2.0 to 13.0 GHz

Model	RF/LO Frequency	Phase Match	Conversion Loss	Image Rejection	L-R Isolation	L-I/Q Isolation	LO Power	Package Style
Number	GHz	Deg (Typ.)	dB (Typ.)	dB (Typ)/ Min.	dB (Typ.) Min.	dB (Typ.) Min	dBm (Nom.)	
IQ2040	2.0 - 4.0	2.0	5.5/7.0	28.0/19.0	40.0/30.0	30.0/25.0	+10.0	P4
IQ3060	3.0 - 6.0	2.5	6.0/8.0	28.0/19.0	30.0/25.0	28.0/20.0	+10.0	P2
IQ4080	4.0 - 8.0	3.0	5.5/7.5	28.0/19.0	30.0/25.0	30.0/22.0	+10.0	P2
IQ7013	7.0 - 13.0	5.0	5.5/7.0	28.0/20.0	30.0/25.0	35.0/28.0	+10.0	P2

Features

- Octave bandwidth
- Broad IF frequency response: DC to 500 MHz
- High isolation
- Excellent image rejection: 28dB Typ

Maximum Rating and Test Conditions

Maximum input power: 250mW
Operating temperature range: -55°C to +125°C
Storage temperature range: -65°C to +150°C
Specifications @+25°C

Product Export and Classification

ECCN: EAR 99 (unless otherwise specified)
HTS: 8541.10.0000

1. Conversion loss and image rejection are tested with an external 90° hybrid connected to the I-Q ports at 70 MHz
2. To indicate Package Style, add prefix to the end of the model number. Example: Model No. IQ6090MF2 - Package "F2"
3. Custom operating frequency bands and power level are available upon request

Double Balanced Mixers

J-Series 10 MHz to 26.0 GHz

	RF Frequency	LO Frequency	IF Frequency	LO Power	Conversion Loss	L-R Isolation	L-I Isolation
Model Number	GHz	GHz	GHz	dBm (Nom)	dB (Typ)	dB (Typ) Min	dB (Typ) Min
J0020	.01 - 1.5	.01 - 1.5	DC - 0.6	7, 10, 13	7.0	40.0/30.0	33.0/20.0
J1040	1.0 - 2.0	1.0 - 2.0	DC - 1.0	7, 10, 13	6.5	35.0/28.0	28.0/20.0
J2080	2.0 - 8.0	2.0 - 8.0	DC - 2.0	7, 10, 13	5.5	35.0/25.0	25.0/18.0
J2012	2.0 - 12.0	2.0 - 12.0	DC - 2.0	7, 10, 13	5.5	35.0/25.0	25.0/18.0
J2118	2.0 - 18.0	1.8 - 18.2	DC - 0.2	7, 10, 13	6.0	28.0/20.0	25.0/18.0
J2018	2.0 - 18.0	2.0 - 18.0	DC - 0.7	7, 10, 13	6.5	28.0/20.0	25.0/18.0
J4080	4.0 - 8.0	4.0 - 8.0	DC - 3.0	7, 10, 13	5.5	40.0/30.0	30.0/22.0
J4015	4.0 - 15.0	4.0 - 15.0	DC - 3.0	7, 10, 13	5.5	35.0/25.0	30.0/20.0
J4018	4.0 - 18.0	4.0 - 18.0	DC - 4.0	7, 10, 13	5.5	35.0/22.0	35.0/20.0
J16026	16.0 - 26.0	16.0 - 26.0	DC - 4.0	7, 10, 13	8.0	38.0/25.0	30.0/20.0

Features

- Multi-octave bandwidth
- High RF and LO frequency
- Broad DC to IF frequency response
- High reliability hermetically sealed coax
- Low conversion loss
- High port-to-port isolations
- RoHS compliant

Maximum Rating and Test Conditions

Maximum input power: 250mW
Operating temperature range: -55°C to +125°C
Storage temperature range: -65°C to +150°C
Specifications @+25°C

Product Export and Classification

ECCN: EAR 99 (unless otherwise specified)
HTS: 8543.70.8000

Mixer Products

Our selection of RF mixers offer many combinations of frequency bands and LO drive levels and are offered in various connectorized modules

Triple Balanced Mixers

A-Series 1.0 to 26.0 GHz

Model	RF Frequency	LO Frequency	IF Frequency	LO Power	Conversion Loss	L-R Isolation	L-I Isolation	Input P1dB Comp Pt	Input TOIP
Number	GHz	GHz	GHz	dBm (Nom.)	dB (Typ.)	dB (Typ.) Min.	dB (Typ.) Min.	dBm (Typ.)	dBm (Typ.)
A1010	1.0 - 10.0	1.0 - 10.0	0.5 - 4.0	+10.0	7.5	25.0/18.0	28.0/18.0	+4.0	+14.0
A2018	2.0 - 18.0	2.0 - 18.0	2.0 - 8.0	+10.0	7.5	25.0/18.0	24.0/16.0	+4.0	+14.0
A2118	2.0 - 18.0	2.0 - 18.0	0.5 - 8.0	+10.0	7.5	25.0/18.0	24.0/16.0	+4.0	+14.0
A2002	2.0 - 20.0	2.0 - 20.0	2.0 - 8.0	+10.0	8.0	25.0/18.0	24.0/16.0	+4.0	+14.0
A2102	2.0 - 20.0	2.0 - 20.0	0.5 - 8.0	+10.0	8.0	25.0/18.0	24.0/16.0	+4.0	+14.0
A6018	6.0 - 18.0	6.0 - 18.0	2.0 - 8.0	+10.0	7.0	27.0/20.0	25.0/20.0	+4.0	+14.0
A6118	6.0 - 18.0	6.0 - 18.0	0.5 - 8.0	+10.0	7.5	27.0/20.0	25.0/20.0	+4.0	+14.0

Features

- Multi-octave bandwidth
- Dual quad diodes
- Ultra wide RF/LO/IF bandwidth
- AC coupled IF output
- High dynamic range application

Maximum Rating and Test Conditions

Maximum input power: 250mW
 Operating temperature range: -55°C to +125°C
 Storage temperature range: -65°C to +150°C
 Specifications @+25°C

Product Export and Classification

ECCN: EAR 99 (unless otherwise specified)
 HTS: 8541.10.0000

1. To indicate package style, add prefix to the end of the model number (Example: Model no. A6118NB - package "B")
2. Connectors are standard to the parts and spacer is optional
3. Custom operating frequency bands and power levels are available upon request
4. LO power: L = +7 (J) dBm, M = +10 (J & A) dBm, N = +13 (J) or +15 (A) dBm, H = +16 (J) or +19 (A) dBm

Frequency Multiplier Products

Eclipse MDI frequency multiplier products include a broad range of devices extending from 1.5 to 26 GHz with excellent isolation

FREQUENCY DOUBLERS

D-Series 1.5 GHz to 26 GHz

	Input Frequency	Output Frequency	Input Drive	Conversion Loss	Fundamental Isolation	3rd Harmonic Suppression
Model Number	GHz	GHz	dBm	dB (Typ.) Max.	dB (Typ.) Min.	dBc (Typ.)
D1550L	1.5 - 5.0	3.0 - 10.0	+11.0 to +13.0	11.0/12.5	30.0/23.0	30.0/23.0
D1550M	1.5 - 5.0	3.0 - 10.0	+16.0 to +19.0	11.0/12.5	30.0/23.0	30.0/23.0
D2060L	2.0 - 6.0	4.0 - 12.0	+11.0 to +13.0	11.0/12.0	30.0/25.0	30.0/23.0
D2060M	2.0 - 6.0	4.0 - 12.0	+16.0 to +19.0	11.0/12.0	30.0/25.0	30.0/23.0
D2010L	2.0 - 10.0	4.0 - 20.0	+11.0 to +13.0	10.0/12.0	30.0/25.0	30.0/20.0
D2010M	2.0 - 10.0	4.0 - 20.0	+16.0 to +19.0	10.0/12.0	30.0/25.0	30.0/20.0
D4090L	4.0 - 9.0	8.0 - 18.0	+11.0 to +13.0	10.5/12.0	30.0/23.0	30.0/22.0
D4090M	4.0 - 9.0	8.0 - 18.0	+16.0 to +19.0	10.5/12.0	30.0/23.0	30.0/22.0
D9013L	9.0 - 13.0	18.0 - 26.0	+11.0 to +13.0	11.5/13.0	30.0/25.0	35.0/25.0
D9013M	9.0 - 13.0	18.0 - 26.0	+16.0 to +19.0	11.5/13.0	30.0/25.0	35.0/25.0

Features

- Multi-octave bandwidth
- Amplifier-doubler and doubler-amplifier are available
- Excellent 3rd harmonic suppression
- Low conversion loss

1. To indicate package style, add prefix to the end of the model number (Example: Model no. D2060LB - package "B")
2. Connectors and spacers are standard to parts
3. Custom operating frequency bands and power levels are available upon request
4. Model no. D2010 is only available in package style "Z"

Maximum Rating and Test Conditions

Maximum input power: 150mW
 Operating temperature range: -55°C to +100°C
 Storage temperature range: -65°C to +150°C
 Specifications @+25°C

Product Export and Classification

ECCN: EAR 99 (unless otherwise specified)
 HTS: 8541.10.0000

Detector Products

Eclipse MDI detector products include a broad range of devices extending from 100 MHz to 26.5 GHz with excellent flatness

BIASED SCHOTTKY DIODE DETECTORS

100 MHz to 26.5 GHz

Frequency Range		Voltage Sensitivity	Tss ³	Flatness	Video Cap
Model Number	GHz	mV/mW	dBm (Typ.)	dB (Typ.)	pF (Typ.)
ESS0112	0.1 - 12.4	1800	-52.0	1.0	470.0
ESS1018	1.0 - 18.0	1500	-52.0	1.5	50.0
ESS2026	2.0 - 26.0	1000	-52.0	2.0	20.0
ESS2018	2.0 - 18.0	1600	-52.0	1.0	20.0
ESS6018	6.0 - 18.0	1600	-52.0	0.8	10.0
ESS8018	8.0 - 18.0	1600	-52.0	0.6	10.0

Features

- High dynamic range @100 uA typical bias
- Flat frequency response
- Ultra wide-band and ultra fast
- Low video output resistance (350 Ω typ.)
- High reliability hermetically sealed modules
- Maximum input power: +23dBm
- Operating temperature range: 0°C to +50°C
- Bias level: 100 μ A typ.

Maximum Rating and Test Conditions

Maximum input power: 50mW
 Operating temperature range: -55°C to +125°C
 Storage temperature range: -65°C to +150°C
 Specifications @+25°C
 Tss is measured with a video amplifier having a min. 50dB gain, <3dB noise figure and 2 MHz video bandwidth

1. Negative output polarity is standard. Add "P" at the end of the model number for positive polarity
2. To indicate package style, add prefix to the end of the model number, (Example: ESS1618PA3 † Package Style "A3")
3. Tss is measured with a video amplifier having at least 50 dB gain, < 3 dB noise figure, and a 2 MHz video bandwidth

Product Export and Classification

ECCN: EAR 99 (unless otherwise specified)
 HTS: 8541.10.0000

BROADBAND THRESHOLD DETECTORS

100 MHz to 20 GHz

Frequency Range		VSWR	Threshold Variation
Model Number	GHz	(Typ.)	dB (Typ.)
TH0120T1	0.1 - 2.0	2.0:1	0.75
TH0140T1	0.1 - 4.0	2.6:1	0.75
TH0112T1	0.1 - 12.4	2.7:1	1.00
TH0518T1	0.5 - 18.5	3.5:1	1.00
TH2018T1	2.0 - 18.0	3.0:1	1.00
TH6018T1	6.0 - 18.0	3.0:1	0.75
TH8018T1	8.0 - 18.0	3.0:1	0.75

Features

- Multi-octave bandwidth
- Broad frequency - input + output
- Low conversion loss
- Minimum pulse width: 50nS typ.
- High port-to-port isolation

Specifications

Maximum input power: +24dBm
 Operating temperature range: -55°C to +125°C
 Specifications: @ +25°C

1. Threshold detector standard package style is "T1"
2. Contact the factory for custom package styles or specifications to meet form, fit and function

Detector Products

Eclipse MDI detector products include a broad range of devices extending from 10 MHz to 26.5 GHz with excellent flatness

ZERO BIAS SCHOTTKY DIODE DETECTORS

10 MHz to 26.5 GHz

Frequency Range		Voltage Sensitivity	VSWR	Flatness	Video Capacitance
Model Number	GHz	mV/mW (Typ.)	(Typ.)	dB (Max.)	pF (Typ.)
EZM0140	0.01 - 4.0	500	1.3:1	0.30	470.0
EZM0118	0.01 - 18.5	400	1.5:1	0.50	470.0
EZM0126	0.01 - 26.5	100	1.50:1 (to 18.0 GHz) 2.0:1 (18 to 26.5 GHz)	0.50 (to 18.0 GHz) 1.00 (18 to 26.5 GHz)	470.0 470.0
EZM2080	2.0 - 8.0	500	1.2:1	0.20	20.0
EZM2018	2.0 - 18.0	500	1.5:1	0.40	20.0
EZR0140	0.01 - 4.0	1500	3.5:1	0.80	470.0
EZR0118	0.01 - 18.5	1000	4.5:1	1.00	470.0
EZR0126	0.01 - 26.0	500	4.5:1	1.50	470.0
EZR2080	2.0 - 8.0	1200	3.5:1	0.50	20.0
EZR2018	2.0 - 18.0	1000	4.5:1	1.00	20.0

Features

- EZM series - extremely flat response
- EZR series - flat frequency response
- No bias required
- Matched input for excellent VSWR (EZM)
- Terminated input for high sensitivity (EZR)
- High reliability hermetically sealed coax

Maximum Rating and Test Conditions

Maximum input power: 100mW
Operating temperature range: 0°C to +90°C
Storage temperature range: -65°C to +150°C
Specifications: @ +25°C

Product Export and Classification

ECCN: EAR 99 (unless otherwise specified)
HTS: 8541.90.0000

PLANAR TUNNEL DIODE DETECTORS

100 MHz to 26.5 GHz

Frequency Range		Voltage Sensitivity	Tss ³	VSWR	Flatness	Video Capacitance
Model Number	GHz	mV/mW (Typ.)	dBm (Typ.)	(Typ.)	±dB (Max.)	pF (Typ.)
DT0120	0.1 - 2.0	800	-51.0	2.0:1	0.75	470.0
DT0510	0.5 - 1.0	1000	-51.0	2.0:1	0.50	100.0
DT1020	1.0 - 2.0	1000	-51.0	2.0:1	0.50	50.0
DT2040	2.0 - 4.0	1000	-51.0	2.0:1	0.50	20.0
DT4080	4.0 - 8.0	900	-50.0	2.5:1	0.70	20.0
DT6012	6.0 - 12.0	800	-50.0	2.7:1	0.60	10.0
DT1218	12.0 - 18.0	700	-47.0	3.0:1	0.50	10.0
DT2018	2.0 - 18.0	500	-47.0	3.5:1	1.00	20.0
DT1826	18.0 - 26.5	400	-47.0	4.0:1	1.00	5.0

Features

- No bias
- RoHS compliant
- Excellent frequency response
- Negative polarity is standard
- High reliability hermetically sealed modules
- Extremely fast pulse response (5 to 100nS rise-time)
- Extremely low video output resistance (125Ω typ.)
- Excellent dynamic range & loaded voltage output sensitivity

Maximum Rating and Test Conditions

Maximum input power: 50mW
Operating temperature range: -55°C to +125°C
Storage temperature range: -65°C to +150°C
Specifications @+25°C
Tss is measured with a video amplifier having a min. 50dB gain, <3dB noise figure and 2 MHz video bandwidth

Product Export and Classification

ECCN: EAR 99 (unless otherwise specified)
HTS: 8541.10.0000

Limiter Products

Eclipse MDI limiter products include a broad range of devices extending from 500 MHz to 18 GHz with excellent VSWR and low loss

PIN-PIN DIODE LIMITERS

500 MHz to 18 GHz

Passive Limiter - EPL Series

	Frequency	Insertion Loss	VSWR	Maximum leakage power (dBm)	
Model Number	GHz	dB (Typ.)	(Typ.)	Peak	CW
EPL0510	0.5 - 1.0	0.4	1.4: 1	+23.0	+20.0
EPL1020	1.0 - 2.0	0.4	1.4: 1	+23.0	+19.0
EPL2040	2.0 - 4.0	0.8	1.5: 1	+23.0	+18.5
EPL4080	4.0- 8.0	1.2	1.5: 1	+20.0	+18.0
EPL5010	5.0 - 10.0	1.4	1.5: 1	+20.0	+18.0
EPL7012	7.0 - 12.0	1.5	1.8: 1	+20.0	+18.0
EPL8016	8.0 - 16.0	2.0	2.0: 1	+20.0	+18.0
EPL2018	2.0 - 18.0	2.5	2.2: 1	+23.0	+19.0

Features

- Power handling: 1 watt CW and 100 Watts peak (1 μ Sec pulse width, 0.1% duty cycle, de-rated to 20% @ +125°C)
- Internal DC return/fast recovery time (10 to 20 μ Sec typ.)
- Limiting threshold above +12dBm typ. & below +20 dBm typ. output leakage
- Specifications @+25°C and -10dBm input power
- Limiting threshold above +12dBm typ. & below +20 dBm typ. output leakage

Product Export and Classification

ECCN: EAR 99 (unless otherwise specified)
HTS: 8543.70.8000

PIN-SCHOTTKY DIODE LIMITERS

500 MHz to 18 GHz

Active Limiter - ESL Series

	Frequency	Insertion Loss	VSWR	Maximum leakage power (dBm)	
Model Number	GHz	dB (Typ.)	(Typ.)	Peak	CW
ESL0510	0.5 - 1.0	0.5	1.5: 1	+20.0	+18.0
ESL1020	1.0- 2.0	0.6	1.5: 1	+20.0	+18.0
ESL2040	2.0- 4.0	0.8	1.5: 1	+20.0	+18.0
ESL4080	4.0 - 8.0	1.4	1.6: 1	+19.0	+16.0
ESL5010	5.0 - 10.0	1.6	1.6: 1	+19.0	+16.0
ESL7012	7.0 - 12.0	1.6	1.6: 1	+19.0	+16.0
EPL8018	8.0 - 18.0	2.5	2.2: 1	+19.0	+15.0
EPL2018	2.0 - 18.0	2.5	2.2: 1	+20.0	+18.0

Features

- Power handling: 1 watt CW and 100 Watts peak (1 μ Sec pulse width, 0.1% duty cycle, derated to 20% @ +125°C)
- Internal DC block
- Limiting threshold above +4dBm Typ.
- 200 μ Sec recovery time
- Specifications @+25°C/-10dBm input power

Product Export and Classification

ECCN: EAR 99 (unless otherwise specified)
HTS: 8543.70.8000

Equalizer Products

Eclipse MDI equalizer products include a broad range of devices extending from 500 MHz to 26.5 GHz with excellent linearity and low VSWR.

NEGATIVE SLOPE EQUALIZERS

500 MHz to 26.5 GHz

Frequency	Attenuation	Insertion Loss	Linearity	VSWR
Model Number	GHz	dB (Typ.)	dB (Typ.)	(Typ.)
EQN0520-4	0.5 - 2.0	4.0	0.75	+/- 0.5 1.5:1
EQN0520-8	0.5 - 2.0	8.0	1.0	+/- 1.0 1.5:1
EQN0102-3	1.0 - 2.0	3.0	0.5	+/- 0.5 1.5:1
EQN0102-6	1.0 - 2.0	6.0	0.5	+/- 0.5 1.5:1
EQN0102-10	1.0 - 2.0	10.0	1.0	+/- 1.0 1.5:1
EQN0104-4	1.0 - 4.0	4.0	0.8	+/- 0.5 1.8:1
EQN0104-6	1.0 - 4.0	6.0	1.0	+/- 0.8 1.8:1
EQN0204-3	2.0 - 4.0	3.0	0.5	+/- 0.25 1.5:1
EQN0204-6	2.0 - 4.0	6.0	0.75	+/- 0.5 1.5:1
EQN0204-10	2.0 - 4.0	10.0	1.0	+/- 1.0 1.5:1
EQN0206-4	2.0 - 6.0	4.0	0.6	+/- 0.5 1.8:1
EQN0206-6	2.0 - 6.0	6.0	0.8	+/- 0.5 1.8:1
EQN0206-8	2.0 - 6.0	8.0	1.0	+/- 0.75 1.8:1
EQN0208-6	2.0 - 8.0	6.0	0.75	+/- 0.75 1.8:1
EQN0208-10	2.0 - 8.0	10.0	1.0	+/- 1.0 1.8:1
EQN0208-16	2.0 - 8.0	16.0	1.5	+/- 1.5 1.8:1
EQN0314-13	3.0 - 14.5	13.0	1.5	+/- 1.0 1.8:1
EQN0408-3	4.0 - 8.0	3.0	0.5	+/- 0.3 1.5:1
EQN0408-6	4.0 - 8.0	6.0	0.8	+/- 0.5 1.5:1
EQN0408-10	4.0 - 8.0	10.0	1.0	+/- 1.0 1.5:1
EQN0412-6	4.0 - 12.0	6.0	1.0	+/- 0.5 1.8:1
EQN0412-8	4.0 - 12.0	8.0	1.2	+/- 0.8 1.8:1
EQN0618-3	6.0 - 18.0	3.0	1.0	+/- 0.5 2.0:1
EQN0618-6	6.0 - 18.0	6.0	1.2	+/- 0.75 2.0:1
EQN0618-10	6.0 - 18.0	10.0	1.5	+/- 1.0 2.0:1
EQN0711-4	7.0 - 11.0	4.0	0.8	+/- 0.5 1.5:1
EQN0711-6	7.0 - 11.0	6.0	1.0	+/- 0.7 1.5:1
EQN0711-8	7.0 - 11.0	8.0	1.2	+/- 1.0 1.5:1

Equalizer Products

Eclipse MDI equalizer products include a broad range of devices extending from 500 MHz to 26.5 GHz with excellent linearity and low VSWR

NEGATIVE SLOPE EQUALIZERS

500 MHz to 26.5 GHz

	Frequency	Attenuation	Insertion Loss	Linearity	VSWR
Model Number	GHz	dB (Typ.)	dB (Typ.)	dB (Typ.)	(Typ.)
EQN0104-08	1.0 - 4.0	8.0	1.0	+/- 1.0	1.8:1
EQN0206-23	2.0 - 6.0	23.0	1.0	+/- 1.5	1.8:1
EQN0520-06	5.0 - 20.0	6.0	1.0	+/- 0.8	1.5:1
EQN0713-16	7.0 - 13.0	3.5	1.0	+/- 0.5	1.8:1
EQN0812-03	8.0 - 12.0	3.0	0.8	+/- 0.5	1.8:1
EQN0812-06	8.0 - 12.0	6.0	1.3	+/- 0.5	1.8:1
EQN0812-10	8.0 - 12.0	10.0	1.5	+/- 1.0	1.8:1
EQN0818-06	8.0 - 12.0	6.0	1.0	+/- 0.5	1.8:1
EQN0818-07	8.0 - 12.0	7.0	1.2	+/- 0.5	1.8:1
EQN0818-09	8.0 - 18.0	9.0	1.2	+/- 1.0	1.8:1
EQN0818-12	8.0 - 18.0	12.0	1.5	+/- 1.2	1.8:1
EQN1218-03	1.2 - 1.8	3.0	1.0	+/- 1.5	1.8:1
EQN1218-07	1.2 - 1.8	7.0	1.25	+/- 0.75	1.8:1
EQN1218-10	1.2 - 1.8	10.0	1.5	+/- 1.0	1.8:1
EQN1226-06	12.0 - 26.5	6.0	1.0	+/- 0.5	1.8:1
EQN1226-08	12.0 - 26.5	8.0	1.25	+/- 0.75	1.8:1

Features

- Models are fixed tuned at the factory
- Adjustable slope models also available
- Meets MIL-E-5400 and MIL-E-16400 environments
- Impedance: 50 Ohms
- SMA connectors standard

Maximum Rating and Test Conditions

Maximum input power: 150mW
 Operating temperature range: 0°C to +90°C
 Storage temperature range: -45°C to +125°C

Product Export and Classification

ECCN: EAR 99 (unless otherwise specified)
 HTS: 8543.7080.00

Coupler Products

Eclipse MDI coupler products include a broad range of devices that extend from 1 GHz to 26.5 GHz with low insertion loss and low VSWR

ULTRA BROADBAND COUPLERS

1.7 GHz to 26.5 GHz

Model Number	Frequency GHz	Insertion Loss dB (Typ.)	VSWR (Typ.)	Coupling dB (Nom.)	Directivity dB (Min.)	Outline
ECP118010	1.0 - 18.0	1.5	1.4:1	10.0	12.0	1
ECP218010	2.0 - 18.0	1.5	1.3:1	10.0	14.0	2
ECP226510	1.7 - 26.5	1.5	1.4:1	10.0	14.0	2
ECP226516	1.7 - 26.5	1.2	1.5:1	16.0	14.0	2

Features

- Low return loss
- Excellent directivity
- Extremely flat response
- High power handling: 20 Watts CW, 3KW Pk.
- Ultra wide bandwidth

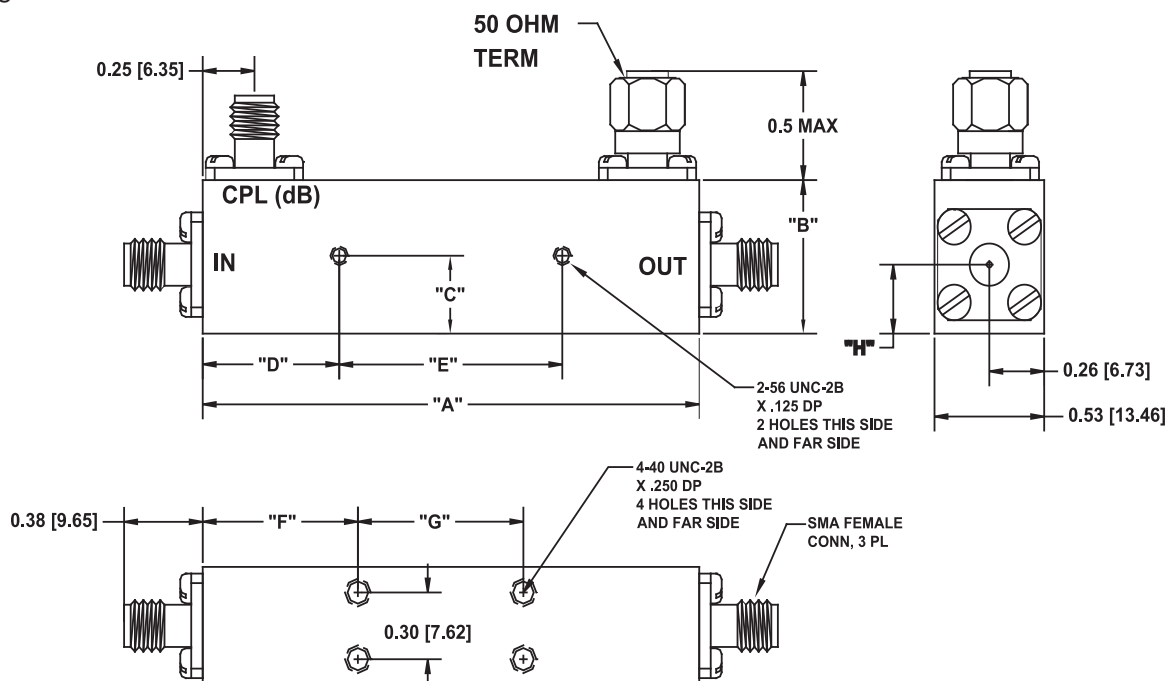
Maximum Rating and Test Conditions

Maximum input power: 20 watts CW, 3000 watts peak
 Operating temperature range: -55°C to +100°C
 Storage temperature range: -65°C to +150°C

Product Export and Classification

ECCN: EAR 99 (unless otherwise specified)
 HTS: 8548900100

Outline Drawing



Dimensions - inches [mm]								
Outline	A	B	C	D	E	F	G	H
1	3.5 [88.90]	0.73 [18.54]	N/A	N/A	N/A	1.0 [25.4]	1.25 [31.75]	0.25 [6.35]
2	2.4 [60.96]	0.69 [17.52]	0.38 [9.65]	0.66 [16.76]	1.078 [27.38]	0.75 [19.05]	0.80 [20.32]	0.31 [7.87]

Amplifier Products

Eclipse Microwave Products EMD1211-PA, is a GaAs MMIC general purpose driver amplifier. This amplifier module is ideal for applications that requires a typical output of +27.5 dBm @ 10 GHz

BROADBAND POWER AMPLIFIER MODULES

DC to 20 GHz

	Frequency	Gain	1dB Compression	Saturated Power	VSWR	3rd Order Intercept
Model Number	GHz	dB (Typ.)	dBm (Typ.)	dBm (Nom.)	(Typ.)	dBm (Typ.)
EMD1211-PA	DC - 20.0	12.5	+27.5	+30.0	1.35:1	+38.0

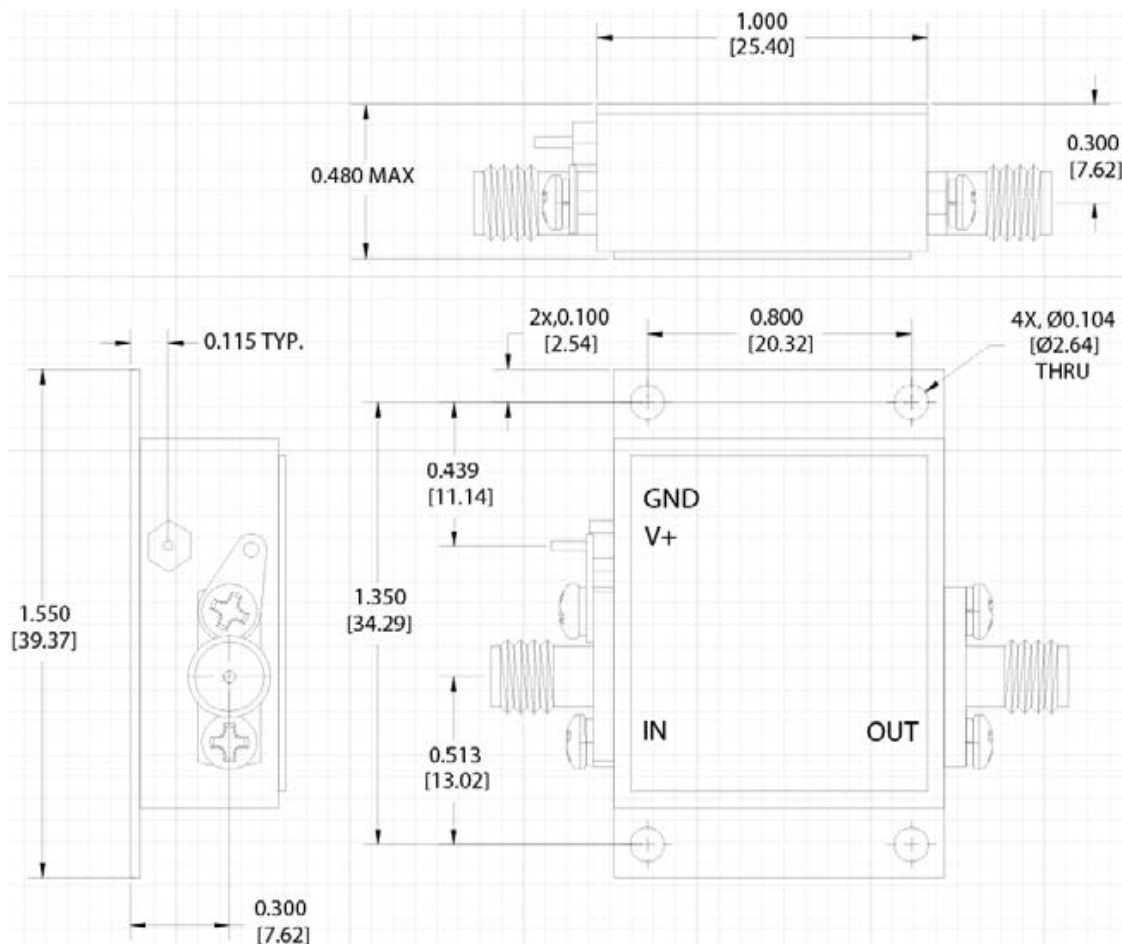
Features

- 12.5 dB gain at 10 GHz
- +30 dBm Psat output power at 10 GHz
- Ultra wide bandwidth
- Excellent VSWR
- +12 volts at 300 mA typical supply voltage
- Low cost connectorized module

Maximum Rating and Test Conditions

Specifications @ +25°C
 RF input power: +18.0 dBm
 Drain Voltage: +8.0 VDC
 Gate Voltage: -2 to 0 VDC
 Max T_j @ 85°: +110°C
 Operating temperature range: -55°C to +150°C
 Storage temperature range: -40°C to +85°C

Outline Drawing



POWER DIVIDERS

Power Divider Products

Eclipse MDI coupler products operate over a broad frequency range that extends from 2 GHz to 26.5 GHz with low insertion loss and low VSWR

ULTRA BROADBAND POWER DIVIDERS

2.0 GHz to 26.5 GHz

	Frequency	Insertion Loss	VSWR	Amplitude Tracking	Phase Tracking	Outline #
Model Number	GHz	dB (Typ.)	(Typ.)	dB (Nom.)	Deg. (Nom.)	
EPW02180	2.0 - 18.0	1.0	1.4:1	0.3	6.0	1
EPW02265	2.0 - 26.5	1.4	1.6:1	0.5	10.0	1
EPW18265	18.0 - 26.5	1.4	1.6:1	0.3	6.0	1
EP4W02180	2.0 - 18.0	1.6	1.8:1	0.8	6.0	2

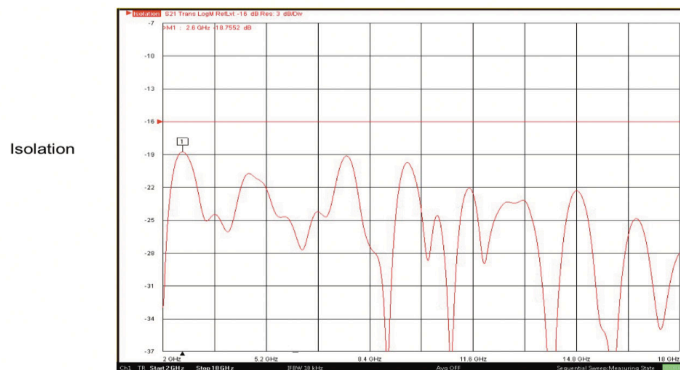
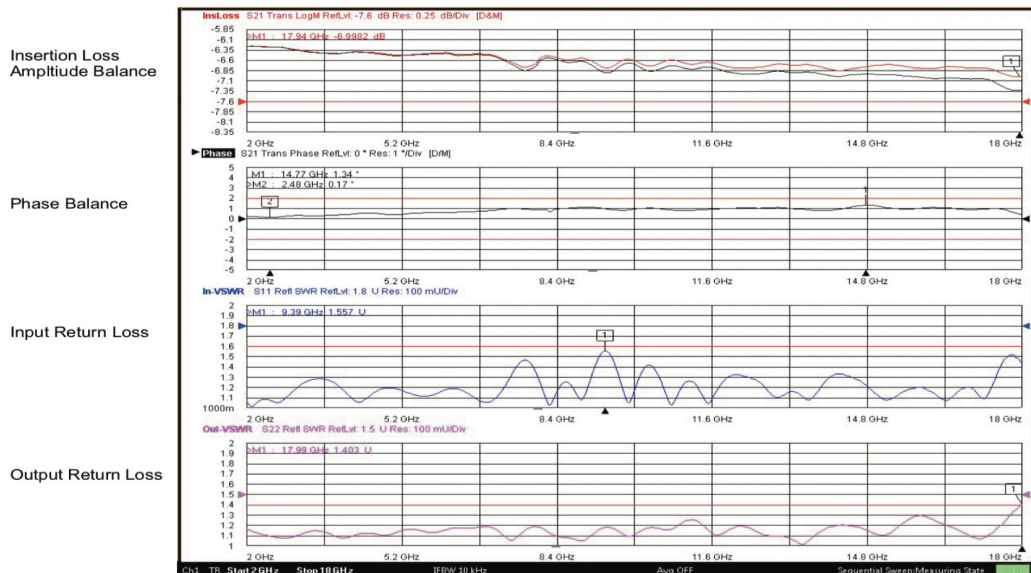
Features

- Excellent frequency sensitivity
- Multi-octave bandwidth
- Excellent VSWR
- High power handling: 10-30 Watts CW
- Low insertion loss

Maximum Rating and Test Conditions

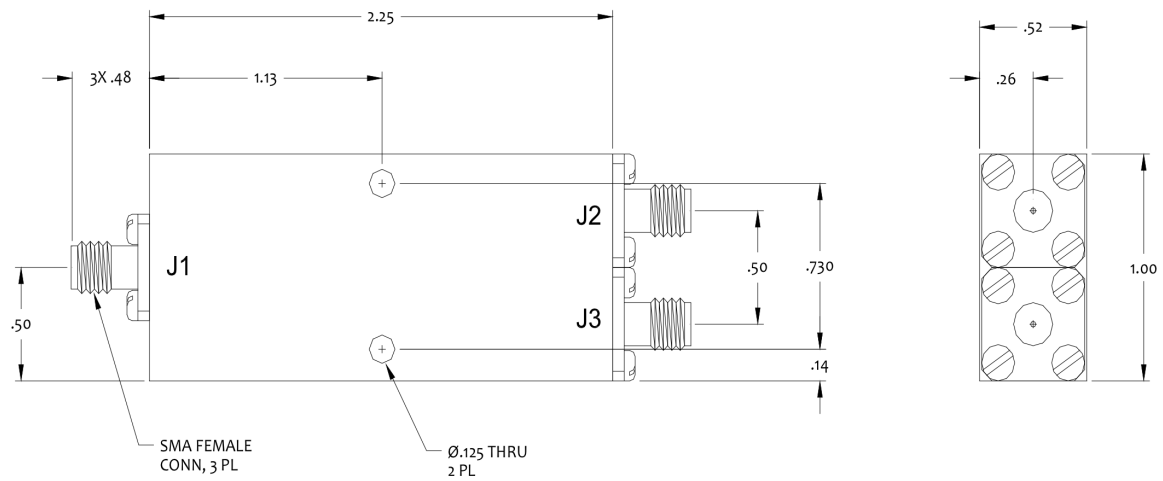
Maximum input power: 10 W CW to 1000 Watts Pk.
 Operating temperature range: -55°C to +100°C
 Storage temperature range: -65°C to +150°C
 Specifications @ +25°C

Typical Test Data Performance
 Actual unit to unit performance may vary.

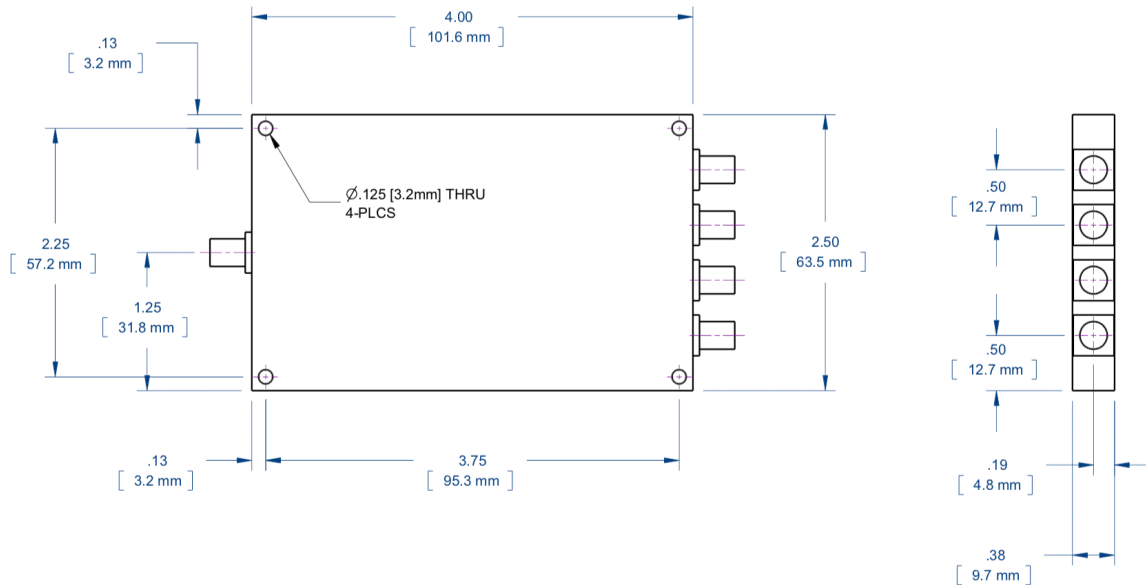


Outline Drawings

Outline 1



Outline 2





A World of Communications

MIXERS • FREQUENCY MULTIPLIERS • LIMITERS • POWER DIVIDERS
DETECTORS • EQUALIZERS • COUPLERS • AMPLIFIERS