

ADMOTECH RF PRODUCTS CATALOG



RF/MICROWAVE COMPONENTS

ISOLATOR / CIRCULATOR

- NARROW BANDWIDTH
- BROAD BANDWIDTH
- SMALL SIZE



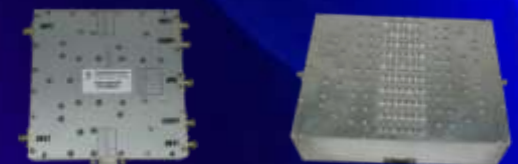
FILTERS

- CAVITY FILTERS
- TRIPLEXER, DUPLEXER
- DELAY FILTER



RF INTEGRATION

- FRONT-END UNIT
- SWITCHED FILTER-BANK
- HIGH POWER RF SWITCH



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Printed in Korea

ADMOTECH Inc.



COMPANY HISTORY

DATES	HISTORY
06/19/2012	Exhibit MTT-S 2012 (Montreal, Canada)
03/01/2012	Selected primary bender of SAMSUNG Electronics (Isolator, Circulator)
11/29/2011	Exhibited Microwave Exhibition 2011 (Yokohama, Japan)
06/05/2011	Exhibited MTT-S 2011 (Baltimore, US)
12/08/2010	Exhibited Microwave Exhibition 2010 (Yokohama, Japan)
12/28/2007	Moved in new office and manufacture building of ADMOTECH
08/06/2007	Designated as an advanced technology corporation by Small and Medium Business Administration (No. 13)
06/11/2007	Maintained its status as a venture corporation by Small and Medium Business Administration (No. 20070101775)
05/30/2007	Selected as a professional corporation of parts and material (no. 4146)
09/04/2006	Maintained its status as an INNO-BIZ Corporation by Small and Medium Business Administration (R3051-0038)
05/12/2005	Extension of ISO 9001:2000 Certification (TQCSI)
09/04/2003	Selected as an INNO-BIZ corporation by Small and Medium Business Administration (No. 3051-0038)
05/30/2003	ADMOTECH exported CAS-100 to U.S.A.
05/27/2003	Confirmed as a venture corporation (No. 031526221-2-0108)
09/23/2002	Registered ADMOTECH's factory
06/06/2002	An acquisition of ISO 9001:2000 certification (AJA 02/5216)
12/26/2001	Designated as a promising advanced technology corporation by Small and Medium Business Administration (No. 01123)
12/04/2001	Selected as a promising Small and Medium Business Corporation by Small and Medium Business Administration (No. 855920)
07/23/2001	Approved as an annex information communication laboratory (No. 20012358)
05/08/2001	Designated as a venture corporation by Small and Medium Business Administration (No. 2001152671-1069)
03/31/2001	Increased capital(1,208,125US\$)
07/03/2000	Selected as a Neo-technology industrialist by The Ministry of Commerce
05/19/2000	Established ADMOTECH Inc.(Capital 450,000US\$)



ISOLATOR / CIRCULATOR

Part Numbering Systems for Isolator / Circulator

FOR INSTANCE : **A D**

ADMOTECH INITIAL

I : ISOLATOR
C : CIRCULATOR

Frequency: MHz/10
Ex) 1855 MHz → 185

None : Clockwise (CW)
A : Count Clockwise (CCW)

PACKAGE OUTLINE
[See Detailed Drawing]
BF & BD: Drop-in 1.0x1.25 inches
CE & CD: Drop-in 0.75x1.0 inches
DE : Drop-in 0.5x0.75 inches
FD : Drop-in 0.75x1.0 inches
LD : Drop-in 0.78x1.06 inches
GD : Drop-in 1.5x1.8 inches
ED : Drop-in 2.09x2.34 inches
CS : Coaxial SMA Type
CN : Coaxial N Type

Drop-in Termination Options/ Coaxial type
[See Detailed Drawing]
K: 5 W Load
T: 100 W / 150 W No Load Connection Pin
A3: -30dB Attenuator Center Pin
A2: -20dB Attenuator Center Pin
DH: Large, Mounting Through Hole - Yes
PH: Small, Mounting Through Hole - Yes
EH: Large, Mounting Through Hole - Yes
QH: Small, Mounting Through Hole - No

Ex) ADI088BFT
ADI185CET
ADI214CET
ADC088BF
ADC214CE
ADI088CSDH
ADI185CSPH
ADC088CSEH
ADC196CSQH

ISOLATOR / CIRCULATOR

General Description

ADMOTECH's RF & Microwave Isolators and Circulators feature Low Loss, Low IMD performance at low cost and fast delivery. Our high quality products are suitable for broad range of applications from WiMAX, Digital TV, PCS, GSM, UMTS and others. For Circulators, replace [I] to [C] in the Part Number. Other Frequency Bandwidths & Termination types are available.



STANDARD DROP-IN

Frequency (GHz)	Part Number	Isolation (dB)	INS. Loss (dB)	Return Loss (dB)	Temp. Range (°C)	Power (W) FWD / REV	Dimensions (Inches)	Package
		Min.	Max.	Min.				
0.180~0.186	ADI018EDT	18	0.4	16	-20~+80	150 / 100	2.09×2.34×0.77	ED
0.204~0.210	ADI020EDT	18	0.4	16				
0.350~0.370	ADI036GDT	16	0.4	16	-20~+80	150 / 100	1.50×1.50×0.39	GD
0.450~0.470	ADI049GDT	20	0.4	20				
0.824~0.849	ADI083BFT	21	0.3	20	-30~+85	150 / 100	1.00×1.00×0.25 1.00×1.00×0.35	BF
0.869~0.894	ADI088BFT	23	0.25	21				
1.250~1.350	ADI130BFT	20	0.3	19				
1.400~1.600	ADI150BFT	18	0.45	15				
1.800~2.000	ADI190BFT	20	0.4	17				
1.500~1.580	ADI154CET	19	0.4	18	-30~+85	150 / 100	0.75×0.75×0.20 0.78×0.75×0.20	CE FD LD
1.700~1.900	ADI180CET	19	0.33	18				
1.840~1.920	ADI188CET	23	0.25	21				
1.920~1.980	ADI195CET	23	0.25	21				
1.920~2.170	ADI200CET	19	0.4	19				
2.000~2.200	ADI210CET	20	0.4	21				
2.000~2.300	ADI215CET	20	0.4	20				
2.200~2.400	ADI230CET	21	0.3	21				
2.300~2.500	ADI240CET	21	0.3	21				
2.400~2.600	ADI250CET	21	0.35	20				
2.500~2.700	ADI260CET	23	0.25	21				
2.700~3.100	ADI290CET	20	0.4	19				
3.600~4.300	ADI395CET	20	0.4	19				
5.400~5.600	ADI550DDT	20	0.4	19				
5.700~5.900	ADI590DDT	20	0.5	19				
6.500~6.700	ADI675DDT	20	0.5	19	-20~+85	25/5		
9.000~10.00	ADI950DDT	17	0.6	17				
10.00~11.00	ADI105DDT	17	0.6	17				

ISOLATOR / CIRCULATOR

General Feature

- 25dB typical isolation
- 0.20dB insertion loss
- Custom products available with several options (see part number system)
- Designed for wireless telecommunication systems. frequency ranges 180MHz~10GHz



BROAD BANDWIDTH DROP-IN

Frequency (GHz)	Part Number	Isolation (dB)	INS. Loss (dB)	Return Loss (dB)	Temp. Range (°C)	Power (W) FWD / REV	Dimensions (Inches)	Package
		Min.	Max.	Min.				
0.098~0.104	ADI010CNx	18	0.6	17	-10~+70	100	3.15×3.54×1.0	
0.180~0.210	ADI019EDT	16	0.7	16	-20~+80	150 / 100	2.09×2.34×0.77	ED
0.210~0.230	ADI020EDT	16	0.7	16				
0.300~0.350	ADI036GDT	16	0.4	16	-20~+80	150 / 100	1.50×1.50×0.39	GD
0.450~0.520	ADI049GDT	20	0.4	16				
0.600~0.900	ADI075BFT	9	1.5	8	-30~+85	150 / 100	1.00×1.00×0.25	BF
0.700~1.000	ADI085BFT	12	0.9	11				
0.900~1.200	ADI105BFT	12	0.6	12				
1.250~1.850	ADI155BFT	14	0.6	14				
1.680~2.100	ADI189CET	17	0.5	16	-30~+85	150 / 100	0.75×0.75×0.20	CE
1.700~2.200	ADI195CET	12	0.55	11				
2.000~2.500	ADI225CET	16	0.5	15				
2.100~2.700	ADI 240CET	13	0.6	12				
2.300~2.700	ADI 250CET	20	0.4	19				
3.600~4.300	ADI 395CET	20	0.4	19				
5.000~6.000	ADI550DDT	18	0.6	18	-20~+85	35/20	0.50×0.64×0.3	DD
5.700~6.100	ADI590DDT	20	0.5	19				
6.500~6.900	ADI675DDT	20	0.5	19	-20~+85	35/20		
9.000~11.00	ADI100DDT	16	0.8	16	-20~+85	25/5		
10.00~11.50	ADI110DDT	17	0.6	17				

BROAD BANDWIDTH COAXIAL

Frequency (GHz)	Part Number	Isolation (dB)	INS. Loss (dB)	Return Loss (dB)	Temp. Range (°C)	Power (W) FWD / REV	Dimensions (Inches)	TYPE
		Min.	Max.	Min.				
1.400~2.400	ADCB1424	15	0.6	15	-10~+70	20/20	2.4×2.34×0.79	SMA
2.000~3.000	ADCB2030	15	0.6	15	-10~+70	20/20	2.0×2.0×0.79	SMA

ISOLATOR / CIRCULATOR

General Feature

- 25dB typical isolation
- 0.25dB insertion loss
- Custom products available with several options (see part number system)
- Designed for wireless telecommunication systems. frequency ranges 200MHz~3GHz

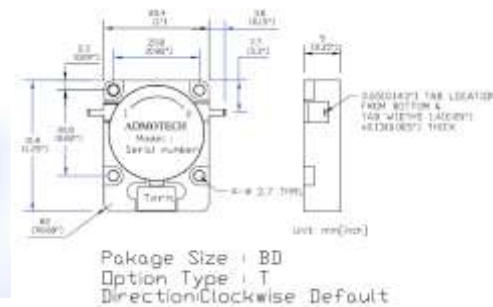


SMALL SIZE & LOW LOSS

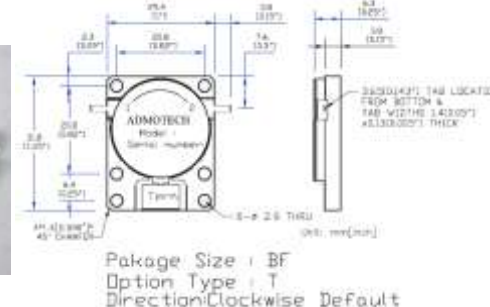
Frequency (GHz)	Part Number	Isolation (dB)	INS. Loss (dB)	Return Loss (dB)	Temp. Range (°C)	Power (W) FWD / REV	Dimensions (Inches)	Package
		Min.	Max.	Min.				
0.220~0.240	ADI023GDT	18	0.7	18	-20~+80	100 / 100	1.50x1.50x0.39	GD
0.270~0.300	ADI029GDT	18	0.7	18				
0.380~0.420	ADI040BDT	16	0.7	16				
0.430~0.470	ADI040BDT	16	0.7	16	-20~+80	100 / 100	1.00x1.00x0.35	BD
0.824~0.849	ADC084FD	21	0.3	19	-20~+85	100 / 100	0.75x0.75x0.27	FD
0.869~0.894	ADC088FD	21	0.3	19	-20~+85	100 / 100	0.75x0.75x0.27	FD
0.805~0.902	ADC088LD	21	0.3	19	-20~+85	100 / 100	0.75x0.75x0.27	LD
0.850~0.950	ADC088LD	16	0.45	16	-20~+85	100 / 100	0.75x0.75x0.27	LD
2.500~2.600	ADS255CD	21	0.35	19	-20~+85	100 / 100	0.75x0.75x0.33	SMT
2.500~2.700	ADS260CD	29	0.4	19	-20~+85	100 / 100	0.75x0.75x0.33	SMT

Drop-in type - BD, BF Series Dimensions

TYPE BDT



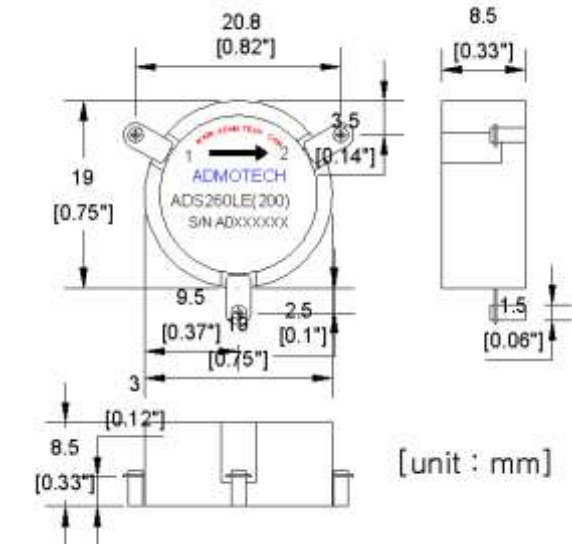
TYPE BFT



ISOLATOR / CIRCULATOR

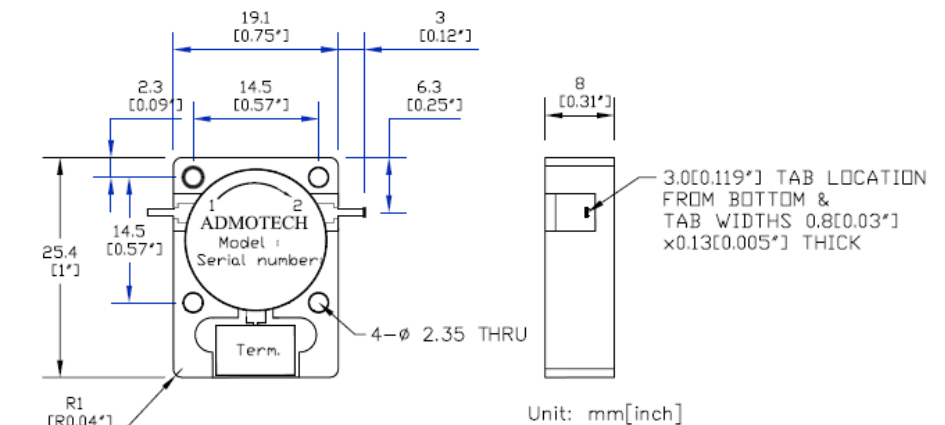
Surface Mount Type - SMT Series Dimensions

TYPE SMT



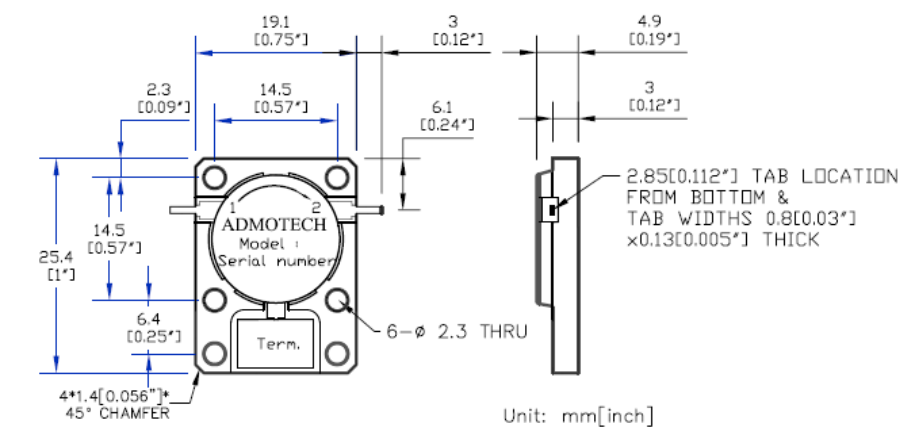
Drop-in type - CD, CE Series Dimensions

TYPE CDT



Package Size : CD
Option Type : T
Direction:Clockwise Default

TYPE CET

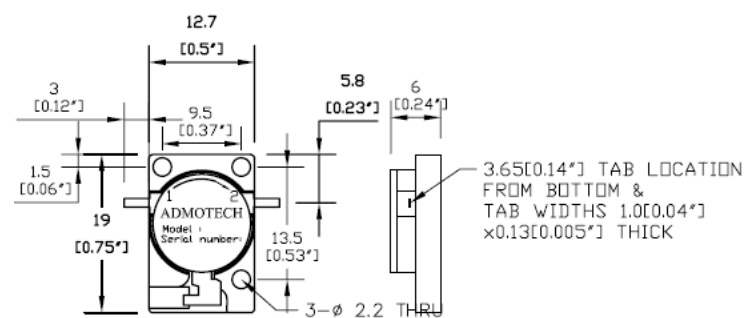


Package Size : CE
Option Type : T
Direction:Clockwise Default

ISOLATOR / CIRCULATOR

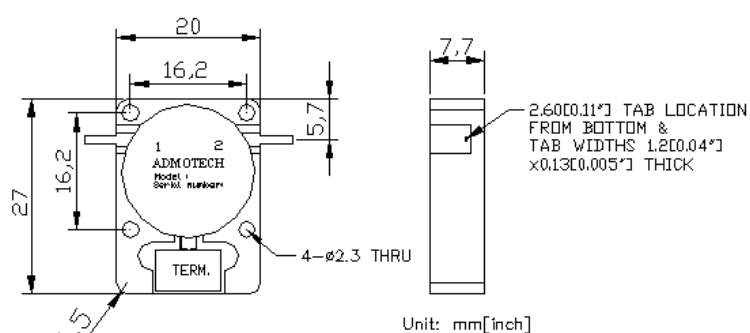
Drop-in type - DE, LD , DD Series Dimensions

TYPE DET



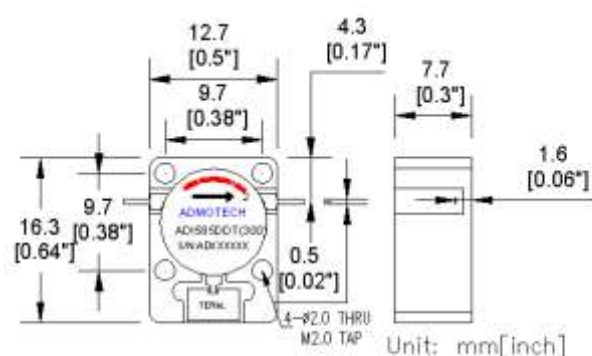
Package Size : DE
Option Type : T
Direction:Clockwise Default

TYPE LDTU



Unit: mm[inch]
Package Size : LD
Option Type : TU
Direction:Clockwise Default

TYPE DDT

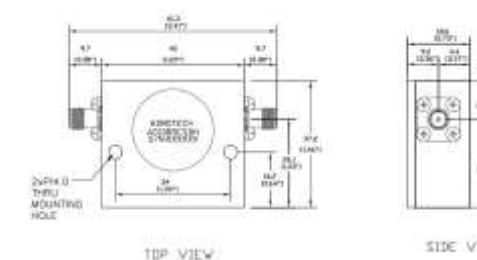


Package Size : DD
Option Type : T
Direction:Clockwise Default

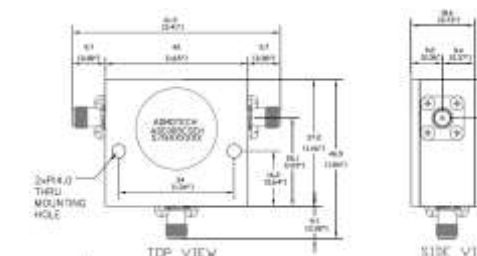
ISOLATOR / CIRCULATOR

“SMA” Connectorized - CS Series Dimensions

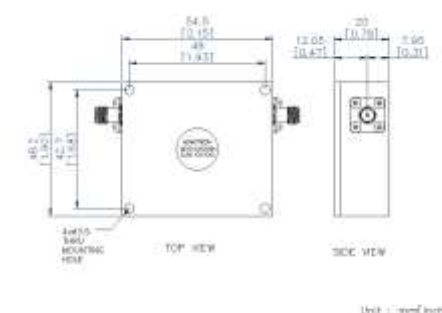
TYPE CSDH



TYPE CSEH

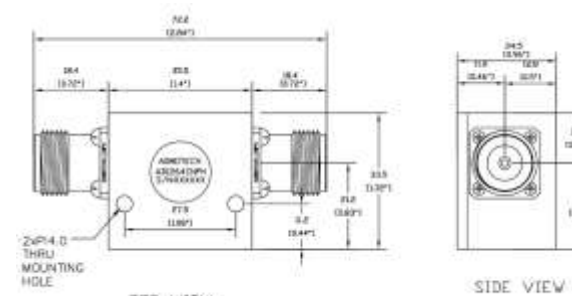


TYPE CSGH

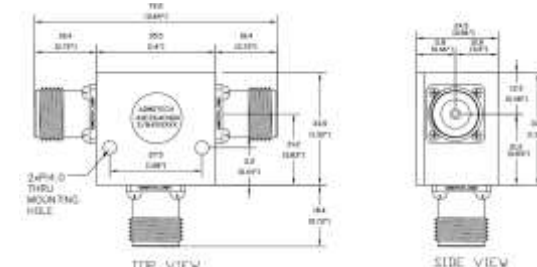


“N-TYPE” Connectorized - CN Series Dimensions

TYPE CNPH



TYPE CNQH



CAVITY DUPLEXER/TRIPLEXER

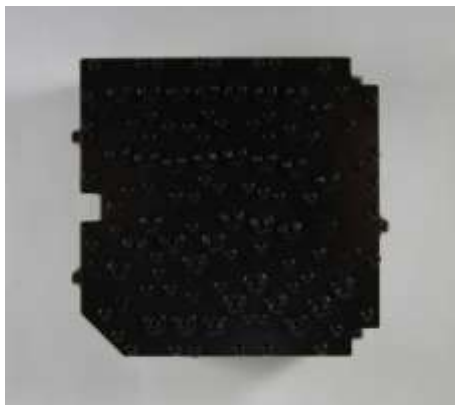
700 LTE Triplex
ADPXM 700-LTE-A



General Features

- Operating Frequencies [MHz]
DL : 728 ~ 757 UL1 : 698 ~ 716 UL2 : 777 ~ 787
- Typical Insertion Loss [dB]
DL : 1.8 UL1 : 2.0 UL2 : 2.0
- Pass Band Ripple : 0.8 dB Max.
- Return Loss : 18 dB Min.
- Isolation (DL to UL) : 90 dBc Min.
- Power Handling : 50.0 W Max.
- Operating Temperature : -10°C ~ + 80°C
- Dimension [mm] : 100 * 100 * 58 (Excluding Connectors)

800 Quad Duplexer
ADPX 860-940-A



General Features

- Operating Frequencies [MHz]
Tx. : 851 ~ 869, 935 ~ 940 Rx. : 896 ~ 901, 806 ~ 824
- Typical Insertion Loss [dB]
Tx : 0.8 Rx : 0.8
- Pass Band Ripple : 0.5 dB Max.
- Return Loss : 18 dB Min.
- Isolation (Tx to RxL) : 40 dBc Min.
- Power Handling : 50.0 W Max.
- Operating Temperature : -10°C ~ + 80°C
- Dimension [mm] : 97 * 97 * 58 (Excluding Connectors)

US-PCS Duplexer
ADPX 19000-A



General Features

- Operating Frequencies [MHz]
Tx. : 1,930 ~ 1,955 Rx. : 1,850 ~ 1,915
- Insertion Loss [dB]
Tx : 2.0 Max. Rx : 2.0 Max.
- Pass Band Ripple : 1.2 dB Max.
- Return Loss : 18 dB Min.
- Isolation (Tx to RxL) : 90 dBc Min.
- Power Handling : 50.0 W Max.
- Operating Temperature : -10°C ~ + 80°C
- Dimension [mm] : 100 * 100 * 30 (Excluding Connectors)

CAVITY FILTERS

Drop-In Cavity Filter
ADBF 7500/625B-A



General Features

- Operating Frequencies [MHz] : 7,125 ~ 7,750
- Typical Insertion Loss [dB] : 0.6
- Pass Band Ripple : 0.2 dB Max.
- Return Loss : 18 dB Min.
- Rejection : 65 dBc Min @ $F_c \pm 1757.5$ MHz
- Power Handling : 2.0 W Max.
- Operating Temperature : -40°C ~ + 85°C
- Dimension [mm] : 60 * 16 * 15 (Excluding Mounting Hole)

X-Band Cavity Filter
ADBF 9000/2100B-A



General Features

- Operating Frequencies [MHz] : 7,950 ~ 10,050
- Typical Insertion Loss [dB] : 0.6
- Pass Band Ripple : 0.2 dB Max.
- Return Loss : 18 dB Min.
- Rejection : 25 dBc Min @ 7.5 GHz, @ 10.7 GHz
- Power Handling : 2.0 W Max.
- Operating Temperature : -20°C ~ + 70°C
- Dimension [mm] : 63 * 20 * 14 (Excluding Mounting Hole)

X-Band Cavity Filter
ADBF 9400/30B-A



General Features

- Operating Frequencies [MHz] : 9,385 ~ 9,415 (30 MHz)
- Insertion Loss [dB] : 2.0 dB Max.
- Pass Band Ripple : 0.5 dB Max.
- Return Loss : 18 dB Min.
- Rejection (Min.): 55 dBc @ $F_c \pm 200$ MHz,
60 dBc @ 11.0 ~ 21.0 GHz
- Power Handling : 1.0 W Max.
- Operating Temperature : -40°C ~ + 85°C
- Dimension [mm] : 28 * 25 * 15 (Excluding Connectors)

CAVITY FILTERS

X-Band Cavity Filter ADBF 10200/600B-A



General Features

- Operating Frequencies [MHz] : 9,900 ~ 10,500 (600 MHz)
- Insertion Loss [dB] : 1.0 dB Max.
- Pass Band Ripple : 0.5 dB Max.
- Return Loss : 18 dB Min.
- Rejection (Min.): 60 dBc @ 8.24 GHz, @ 12.21 GHz
60 dBc @ 13.0 ~ 21.0 GHz
- Power Handling : 2.0 W Max.
- Operating Temperature : -40°C ~ + 85°C
- Dimension [mm] : 37 * 20 * 15 (Excluding Connectors)

Ku Band Duplexer ADPX 15435/16020A



General Features

- Operating Frequencies [MHz]
Tx : 15,370~ 15,550 Rx : 15940 ~ 16100
- Insertion Loss [dB] : 1.2 Max.
- Pass Band Ripple : 0.5 dB Max.
- Return Loss : 18 dB Min.
- Isolation (Tx to Rx) : 80 dBc Min.
- Power Handling : 1.0 W Max.
- Operating Temperature : -20°C ~ + 70°C
- Dimension [mm] : 60 * 22 * 15 (Excluding Connectors)

Ku-Band Cavity Filter ADBF 10200/600B-A



General Features

- Operating Frequencies [MHz] : 15,400 ~ 17,520 (2080 MHz)
- Insertion Loss [dB] : 1.0 dB Max.
- Pass Band Ripple : 0.5 dB Max.
- Return Loss : 15 dB Min.
- Rejection (Min.): 50 dBc @ 12.32 GHz, @ 19.6 GHz
- Power Handling : 2.0 W Max.
- Operating Temperature : -20°C ~ + 70°C
- Dimension [mm] : 39 * 20 * 14 (Excluding Connectors)

CAVITY FILTERS

Miniature Cavity Filter ADBF 2250/510B-A



General Features

- Operating Frequencies [MHz] : 1,995 ~ 2,505 (510 MHz)
- Insertion Loss [dB] : 1.0 dB Max.
- Pass Band Ripple : 0.5 dB Max.
- Return Loss : 18 dB Min.
- Rejection (Min.): 30 dBc @ Fc ± 600 MHz
- Power Handling : 2.0 W Max.
- Operating Temperature : -20°C ~ + 70°C
- Dimension [mm] : 50* 33.5 * 14 (Excluding Connectors)

Wideband Cavity Filter ADBF 3000/1600B-A



General Features

- Operating Frequencies [MHz] : 2,200 ~ 3,800 (3000 MHz)
- Insertion Loss [dB] : 0.5 dB Max.
- Pass Band Ripple : 0.2 dB Max.
- Return Loss : 15 dB Min.
- Rejection (Min.): 30 dBc @ Fc ± 1600 MHz
- Power Handling : 2.0 W Max.
- Operating Temperature : -20°C ~ + 70°C
- Dimension [mm] : 64* 31 * 22 (Excluding Connectors)

Wideband Cavity Filter ADBF 4050/1700B-A



General Features

- Operating Frequencies [MHz] : 3,200 ~ 4,900 (4050 MHz)
- Insertion Loss [dB] : 0.5 dB Max.
- Pass Band Ripple : 0.2 dB Max.
- Return Loss : 15 dB Min.
- Rejection (Min.): 30 dBc @ Fc ± 1700 MHz
- Power Handling : 2.0 W Max.
- Operating Temperature : -20°C ~ + 70°C
- Dimension [mm] : 65.3* 31 * 19 (Excluding Connectors)

RF Subsystems

Front End Units ADFEU 950-A



General Features

- Operating Frequencies [MHz]
Tx : 940 ~ 960 Rx : 895 ~ 915
- Typical Insertion Loss [dB] : 0.7 dB
- Return Loss : 20 dB Min. (all ports)
- Isolation (Tx to Rx) : 105 dBc Min.
- Power Handling : 100.0 W Max.
- Noise Figure : 1.8 dB typ., 2.2 dB Max.
- 3rd & 5th PIMD : -107 dBm Max. (2 x 47dBm(50 W CW))
- Operating Temperature : -30°C ~ + 65°C
- Dimension [mm] : 300 * 300 * 65 (Excluding Connectors)
- Weight : 9.9 kg

Switching LNA ADFEU 950-A



General Features

- Operating Frequencies [MHz] : 2,500 ~ 2,700
- 80 dB typical Isolation (HPA to Rx @Tx Mode)
- 0.3 dB typical Insertion Loss (HPA to Ant @ Tx Mode)
- Fast Switching Time (0.5 µsec)
- 7V DC supply (Idc = 500 mA Max.)
- TTL compatible control
- 1.6 dB Typical Noise Figure and 26 dB Rx. Gain
- 35 dBm Output IP3
- Overpower protection (shutdown level : -10 dBm)
- 30 dBm dynamic range detector
- Switch and LNA ALARM

Switch Module ADWSM 2600L

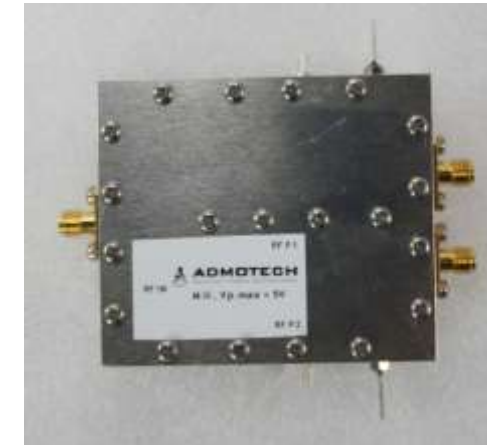


General Features

- Operating Frequencies [MHz] : 2,500 ~ 2,700
- 110dB typical Isolation (HPA to Ant @Rx)
- 90dB typical Isolation (Ant to Rx Out @Tx)
- 1.0dB typical Insertion Loss (HPA to Ant @ Tx)
- Fast Switching Time (0.5 µsec)
- 1.7 dB typical Noise Figure and 22 dB Rx. Gain
- 35dBm Output IP3
- Overpower protection (shutdown level : -10dBm)
- 40dBm dynamic range detector
- 7V, -12V DC supply (Idc = 1A Max.)
- TTL compatible control

RF Subsystems

High Power Switch ADHS 02-30 L



General Features

- Operating Frequencies [MHz] : 2 ~ 30 (HF Band)
- Insertion Loss [dB] : 0.5 dB Max.
- Return Loss : 20 dB Min.
- Isolation : 60 dBc Min.
- Switching Time : 20 usec Max.
- Bias Voltage : + 5V
- Power Handling : 53 dBm (CW), 56dBm (Peak)
- 2nd Harmonics: 60 dBc Min.
- Operating Temperature : -40°C ~ + 125°C
- Dimension [mm] : 70 * 60 * 30 (Excluding Connectors)

Channel Filter Bank ADFB 1500/600-A



General Features

- Operating Frequencies [MHz] : 1,250 ~ 1,850
- Channel Bandwidth : 70 MHz. (10 Channel)
- Insertion Loss [dB] : 2.5 dB Max.
- Return Loss : 18 dB Min.
- Switching Time : 1 usec Max.
- Bias Voltage : + 5V, 2A Max.
- Control Interface : BCD 4 bits
- Power Handling : 47 dBm (CW) Max.
- 2nd Harmonics: 60 dBc Min.
- Operating Temperature : -40°C ~ + 125°C
- Dimension [mm] : 160 * 200 * 50 (Excluding Connectors)

Tunable Filter ADTF 800~2700-A



General Features

- Tunable Frequency Range [MHz] : 800 ~ 2700
- Channel Bandwidth : 40 MHz ~ 200 MHz
- Insertion Loss [dB] : 3.5 dB Max.
- Return Loss : 15 dB Min.
- Delay Time : 1 us
- Bias Voltage : + 8V, 1A Max.
- Power Handling : 30 dBm (CW) Max.
- Operating Temperature : -40°C ~ + 125°C