

# Dielectric Filters (GIGAFIL®)

**muRata**

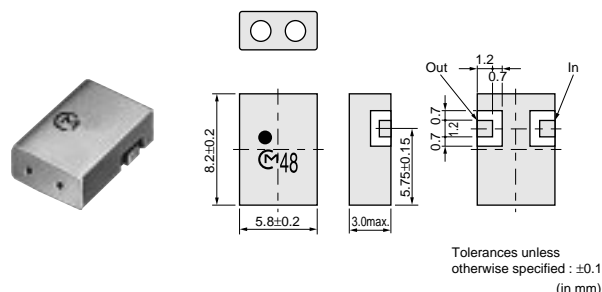
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## Band Pass Filters

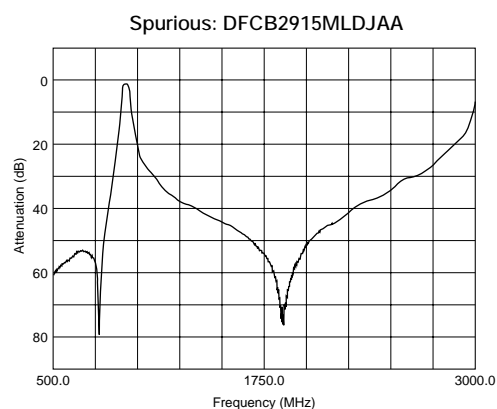
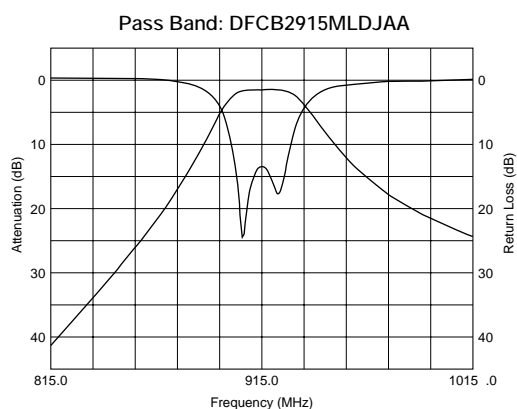
### DFCB Series 800/900MHz

#### ■ Features

1. Low insertion loss for using high Q-value dielectric resonators
2. Small and light for using high dielectric constant ceramics
3. Excellent temperature stability for temperature compensated dielectric constant (0+-5 ppm/degree C max.)
4. Excellent mechanical stability without vibratile structure
5. SMD and reflow soldering available
6. Mountable by automatic placement machine



#### ■ Characteristics



Application	Part Number	fo (MHz)	Bandwidth (MHz)	IL at BW (dB max.)	Attenuation (dB min.)	Operation Temp. (°C)
AMPS	DFCB2836MLDJAA	836.5	25	2.6	6.5 (869 to 894MHz)	-30 to +85
CT2	DFCB2841MLEJAA	841	4	3.0	38 (Fo-150MHz)	-30 to +85
CT2	DFCB2866MLEJAA	866	4	3.0	38 (Fo-150MHz)	-30 to +85
AMPS	DFCB2881MLDJAA	881.5	25	2.6	9 (824 to 849MHz)	-30 to +85
CT1+	DFCB2886MLEJAA	886	2	3.0	24 (Fo-44MHz)	-30 to +85
GSM	DFCB2902MLDJAA	902.5	25	2.6	27 (Fo-77.5MHz)	-30 to +85
WLAN915	DFCB2903MLEJAA	903	2	3.0	20 (Fo+22MHz)	-30 to +85
CT2	DFCB2912MLDJAA	912	4	2.0	50 (Fo-150MHz)	-30 to +85
CT2	DFCB2912MLEJAA	912	4	3.0	38 (Fo-150MHz)	-30 to +85
CT1	DFCB2914MLEJAA	914.5	1	3.0	24 (Fo-44MHz)	-30 to +85
WLAN915	DFCB2915MLDJAA	915	26	2.5	27 (837.5MHz)	-35 to +85
WLAN915	DFCB2926MLEJAA	926.25	2.7	2.8	21 (902.4 to 905.1MHz)	-30 to +85
WLAN915	DFCB2927MLEJAA	927	2	3.0	15 (Fo-22MHz)	-30 to +85
CT1+	DFCB2931MLEJAA	931	2	3.0	24 (Fo-44MHz)	-30 to +85
GSM	DFCB2947MLDJAA	947.5	25	2.6	27 (Fo-77.5MHz)	-30 to +85
CT1	DFCB2959MLEJAA	959.5	1	3.0	30 (Fo+44MHz)	-30 to +85
LMR	DFCB3815MLDJAA	815.5	19	2.5	12 (Fo±35.5MHz)	-30 to +85
AMPS	DFCB3836MLDJAA	836.5	25	3.0	12 (869 to 894MHz)	-30 to +85
CT2	DFCB3841MLEJAA	841	4	5.3	60 (Fo-150MHz)	-30 to +85
LMR	DFCB3860MLDJAA	860.5	19	2.5	13 (Fo-35.5MHz)	-30 to +85

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Application	Part Number	fo (MHz)	Bandwidth (MHz)	IL at BW (dB max.)	Attenuation (dB min.)	Operation Temp. (°C)
CT2	<b>DFCB3866MLEJAA</b>	866	4	5.3	60 (Fo-150MHz)	-30 to +85
AMPS	<b>DFCB3881MLDJAA</b>	881.5	25	3.0	15 (824 to 849MHz)	-30 to +85
CT1+	<b>DFCB3886MLEJAA</b>	886	2	5.3	45 (Fo-44MHz)	-30 to +85
GSM	<b>DFCB3902MLDJAA</b>	902.5	25	3.0	45 (Fo-77.5MHz)	-30 to +85
WLAN915	<b>DFCB3903MLEJAA</b>	903	2	5.3	29 (Fo-22MHz)	-30 to +85
CT2	<b>DFCB3912MLEJAA</b>	912	4	5.3	60 (Fo-150MHz)	-30 to +85
CT1	<b>DFCB3914MLEJAA</b>	914.5	1	5.3	45 (Fo-44MHz)	-30 to +85
WLAN915	<b>DFCB3915MLDJAA</b>	915	26	3.0	15 (Fo-32.5MHz)	-30 to +85
WLAN915	<b>DFCB3927MLEJAA</b>	927	2	5.3	29 (Fo-22MHz)	-30 to +85
CT1+	<b>DFCB3931MLEJAA</b>	931	2	5.3	45 (Fo-44MHz)	-30 to +85
GSM	<b>DFCB3947MLDJAA</b>	947.5	25	3.0	45 (Fo-77.5MHz)	-30 to +85
CT1	<b>DFCB3959MLEJAA</b>	959.5	1	5.3	45 (Fo-44MHz)	-30 to +85

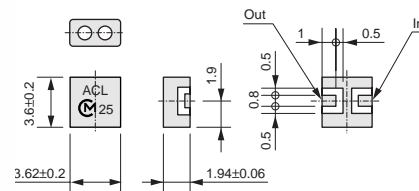
## DFCB Series 1.5-5GHz

### ■ Features

1. Low insertion loss for using high Q-value dielectric resonators
2. Small and light for using high dielectric constant ceramics
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4. Excellent mechanical stability without vibratile structure
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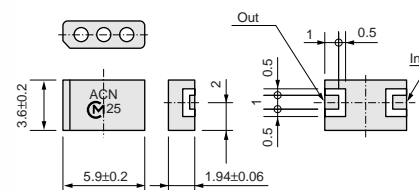
DFCB22G33LBJAA



Tolerances unless  
otherwise specified : ±0.1  
(in mm)



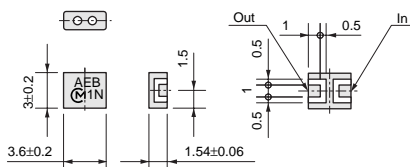
DFCB32G33LBJAA



Tolerances unless  
otherwise specified : ±0.1  
(in mm)



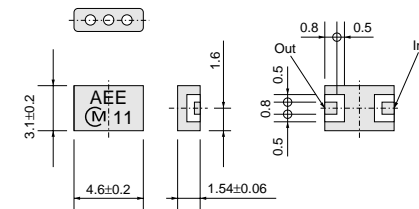
DFCB25G25LAHAA



Tolerances unless  
otherwise specified : ±0.1  
(in mm)



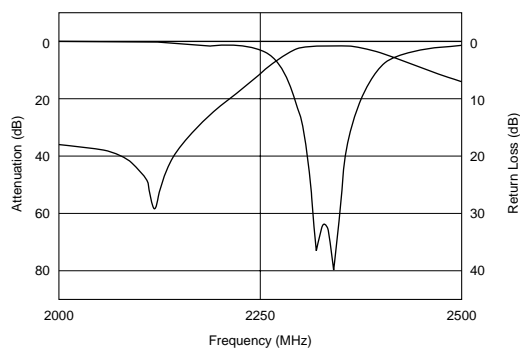
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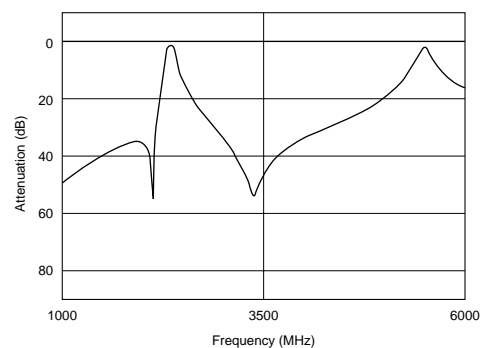
Tolerances unless  
otherwise specified : ±0.1  
(in mm)

### ■ Characteristics

Pass Band: DFCB22G33LBJAA



Spurious: DFCB22G33LBJAA

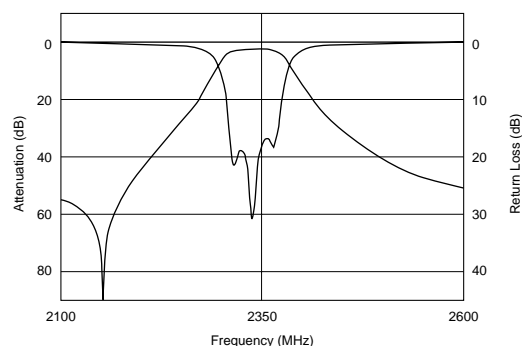


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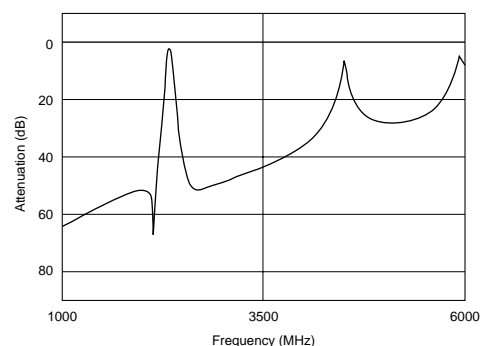
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## Characteristics

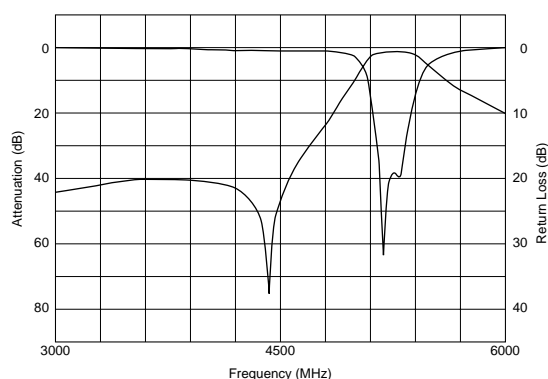
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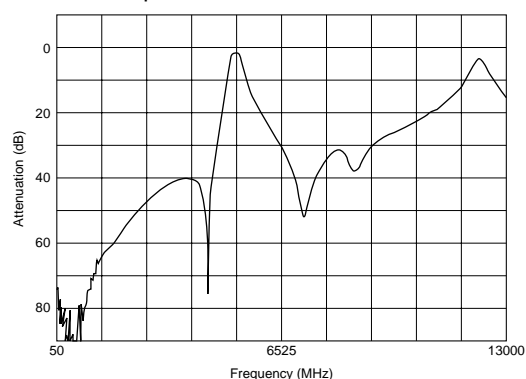
Spurious: DFCB32G33LBJAA



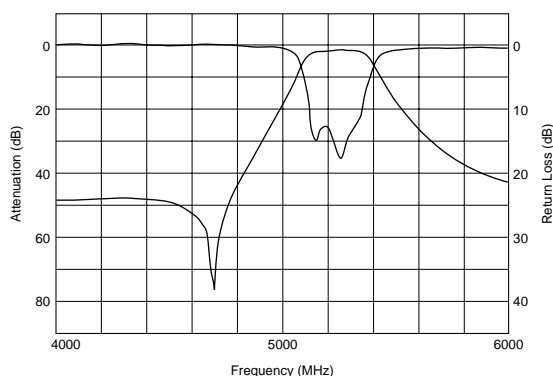
Pass Band: DFCB25G25LAHAA



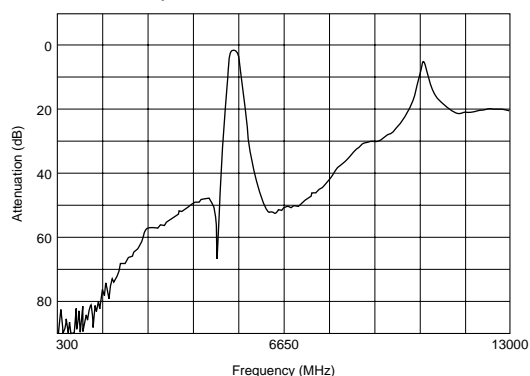
Spurious: DFCB25G25LAHAA



Pass Band: DFCB35G25LAHAA



Spurious: DFCB35G25LAHAA



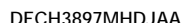
Application	Part Number	fo (MHz)	Bandwidth (MHz)	IL at BW (dB max.)	Attenuation (dB min.)	Operation Temp. (°C)
DAB	DFCB21G47LBJAA	1472	40	2.0	38 (1122MHz)	-30 to +85
PDC1.5	DFCB21G48LBJAA	1489	24	1.4	10 (1607 to 1631MHz)	-30 to +85
GPS	DFCB21G57LBJAB	1575.42	3	1.3	37 (1850 to 1910MHz)	-35 to +85
GPS	DFCB21G57LCJAA	1575.42	2	3.5	15 (Fo±50MHz)	-30 to +85
GPS	DFCB21G57LDJAB	1575.42	2	3.15	18 (Fo±50MHz)	-30 to +85
DCS1800	DFCB21G84LDJAA	1842.5	75	2.0	20 (Fo-160MHz)	-35 to +85
PCS1.9	DFCB21G88LDJAA	1880	60	1.5	17 (2280MHz)	-30 to +85
DECT	DFCB21G89LBJAA	1890	20	2.0	40 (1660 to 1680MHz)	-30 to +85
DECT	DFCB21G89LBJAB	1890	20	1.7	35 (1660 to 1680MHz)	-30 to +85
DECT	DFCB21G89LDHAA	1890	20	0.9	27 (1655 to 1679MHz)	-10 to +55
DECT	DFCB21G89LDJAA	1890	20	2.0	45 (1660 to 1680MHz)	-30 to +85
PHS	DFCB21G90LBJAA	1907.5	25	1.0	20 (1655 to 1680MHz)	-15 to +55

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Application	Part Number	fo (MHz)	Bandwidth (MHz)	IL at BW (dB max.)	Attenuation (dB min.)	Operation Temp. (°C)
PHS	DFCB21G90LBJAB	1907.5	25	1.6	35 (1655 to 1680MHz)	-15 to +55
PHS	DFCB21G90LBJAC	1907.5	25	1.9	45 (1655 to 1680MHz)	-15 to +55
DECT (CHINA)	DFCB21G91LBJAA	1910	20	1.7	34 (1675 to 1700MHz)	-30 to +85
DECT (CHINA)	DFCB21G91LDJAA	1910	20	1.8	40 (1675 to 1700MHz)	-30 to +85
CDMA1.9	DFCB21G92LBJAA	1920	20	1.2	20 (1655 to 1694MHz)	-30 to +85
CDMA1.9	DFCB21G92LDJAA	1920	20	1.9	16 (1800 to 1820MHz)	-30 to +85
PCS1.9	DFCB21G96LDJAA	1960	60	1.5	17 (2360MHz)	-30 to +85
TD-SCDMA	DFCB22G01LBJAA	2017.5	15	1.5	35 (1270MHz)	-35 to +85
W-CDMA	DFCB22G14LBJAA	2140	60	2.7	26 (1920 to 1980MHz)	-30 to +85
Sirius Radio	DFCB22G32LBJAA	2326	14	1.8	8.5 (2227MHz)	-35 to +85
XM Satellite	DFCB22G33LBJAA	2339	14	1.8	8.5 (2240MHz)	-35 to +85
WLAN2.4	DFCB22G44LANAA	2441.5	83	1.5	35 (2000MHz)	-35 to +85
WLAN2.4	DFCB22G44LBJAA	2442	84	2.0	16 (Fo-250MHz)	-30 to +85
WLAN2.4	DFCB22G45LBJAA	2450	100	2.0	15 (Fo-250MHz)	-30 to +85
WLAN2.4	DFCB22G48LBJAA	2484	26	2.0	27.5 (Fo-204MHz)	-30 to +85
VICS	DFCB22G50LBJAA	2500	4	4.5	20 (2440MHz)	-30 to +85
WLAN5G	DFCB25G25LAHAA	5250	200	1.5	38 (4370 to 4510MHz)	-35 to +85
WLAN5G	DFCB25G59LAHAA	5597.5	255	1.5	11 (Fo-375MHz)	-35 to +85
WLAN5G	DFCB25G77LAHAA	5775	100	1.5	12 (Fo-375MHz)	-35 to +85
ETC	DFCB25G80LBHAA	5800	100	2.0	25 (Fo-375MHz)	-30 to +85
DAB	DFCB31G47LBJAA	1472	40	3.0	45 (1100MHz)	-35 to +85
DCS1800	DFCB31G74LBJAA	1747.5	75	3.5	45 (1464 to 1539MHz)	-30 to +85
DCS1800	DFCB31G84LBJAA	1842.5	75	3.5	45 (1559 to 1634MHz)	-30 to +85
DCS1800	DFCB31G84LBJAB	1842.5	75	2.75	45 (0.3 to 1388MHz)	-30 to +85
PCS1.9	DFCB31G88LBJAA	1880	60	3.7	5 (1930MHz)	-30 to +85
PCS1.9	DFCB31G88LBJAB	1880	60	4.0	41 (2043 to 2103MHz)	-30 to +85
W-CDMA	DFCB31G95LBJAA	1950	60	3.5	35 (2110 to 2170MHz)	-30 to +85
PCS1.9	DFCB31G96LBJAA	1960	60	3.7	5 (1910MHz)	-30 to +85
PCS1.9	DFCB31G96LBJAB	1960	60	3.0	10 (1498 to 1860MHz)	-30 to +85
PCS1.9	DFCB31G96LBJAC	1960	60	2.8	10 (1860MHz)	-30 to +85
PCS1.9	DFCB31G96LBJAE	1960	60	3.7	20 (2065 to 2125MHz)	-35 to +85
W-CDMA	DFCB32G14LBJAA	2140	60	3.7	30 (1920 to 1980MHz)	-30 to +85
Sirius Radio	DFCB32G32LBJAA	2326	14	3.0	24 (2227MHz)	-35 to +85
XM Satellite	DFCB32G33LBJAA	2339	14	3.0	24 (2240MHz)	-35 to +85
WLAN2.4	DFCB32G44LBJAA	2442	84	3.2	30 (Fo-250MHz)	-30 to +85
WLAN2.4	DFCB32G45LBJAA	2450	100	3.2	30 (Fo-250MHz)	-30 to +85
WLAN5G	DFCB35G25LAHAA	5250	200	3.3	45 (4450 to 4650MHz)	-35 to +85
WLAN5G	DFCB35G59LAHAA	5597.5	255	3.6	45 (4750 to 5000MHz)	-35 to +85
WLAN5G	DFCB35G77LAHAA	5775	100	3.0	30 (Fo-375MHz)	-35 to +85
WLAN5G	DFCB35G80LBHAA	5800	150	3.4	10 (Fo-175MHz)	-35 to +85

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## Pass Band: DFCH3897MHDJAA

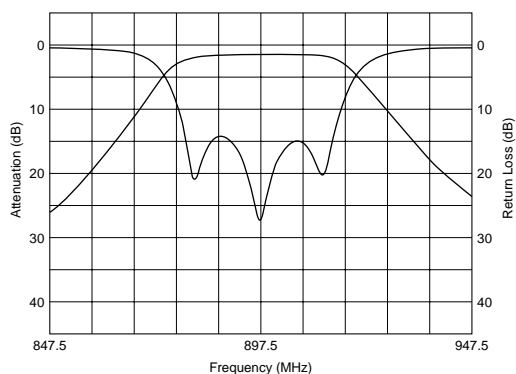


Figure 1 is a line graph showing the attenuation of a 100-MHz signal as a function of frequency. The x-axis is labeled "Frequency (MHz)" and ranges from 500.0 to 3000.0 with major grid lines every 500.0 MHz. The y-axis is labeled "Attenuation (dB)" and ranges from 0 to 80 with major grid lines every 20 dB. The curve starts at approximately 70 dB at 500 MHz, rises to a sharp peak of 0 dB at approximately 1000 MHz, then drops to a minimum of approximately 75 dB at approximately 1200 MHz. It then rises to a broad peak of approximately 10 dB at approximately 2500 MHz, before dropping sharply to approximately 40 dB at 3000 MHz.

Figure 1 is a line graph showing the attenuation of a 100-MHz signal as a function of frequency. The x-axis is labeled "Frequency (MHz)" and ranges from 500.0 to 3000.0 with major grid lines every 500.0 MHz. The y-axis is labeled "Attenuation (dB)" and ranges from 0 to 80 with major grid lines every 20 dB. The curve starts at approximately 70 dB at 500 MHz, rises to a sharp peak of 0 dB at 1000 MHz, drops to a sharp dip of approximately 75 dB at 1500 MHz, and then rises to a broad peak of 0 dB between 2500 MHz and 2800 MHz, before dropping to approximately 15 dB at 3000 MHz.

Application	Part Number	fo (MHz)	Bandwidth (MHz)	IL at BW (dB max.)	Attenuation (dB min.)	Operation Temp. (°C)
LMR	<b>DFCH3815MHDJAA</b>	815	20	2.8	36 (Fo±80MHz)	-30 to +85
AMPS	<b>DFCH3836MHDJAA</b>	836.5	25	2.6	12 (Fo±32.5MHz)	-30 to +85
LMR	<b>DFCH3860MHDJAA</b>	860	20	2.8	36 (Fo±80MHz)	-30 to +85
AMPS	<b>DFCH3881MHDJAA</b>	881.5	25	2.6	12 (Fo±32.5MHz)	-30 to +85
ETACS	<b>DFCH3888MHDJAA</b>	888.5	33	3.0	7 (Fo±28.5MHz)	-30 to +85
EGSM	<b>DFCH3897MHDJAA</b>	897.5	35	3.0	6 (Fo±27.5MHz)	-30 to +85
GSM	<b>DFCH3902MHDJAA</b>	902.5	25	2.6	12 (Fo±32.5MHz)	-30 to +85
ETACS	<b>DFCH3933MHDJAA</b>	933.5	33	3.0	7 (Fo±28.5MHz)	-30 to +85
EGSM	<b>DFCH3942MHDJAA</b>	942.5	35	3.0	6 (Fo±27.5MHz)	-30 to +85
GSM	<b>DFCH3947MHDJAA</b>	947.5	25	2.6	12 (Fo±32.5MHz)	-30 to +85
ETACS	<b>DFCH4888MHDJAA</b>	888.5	33	4.6	15 (Fo±28.5MHz)	-30 to +85

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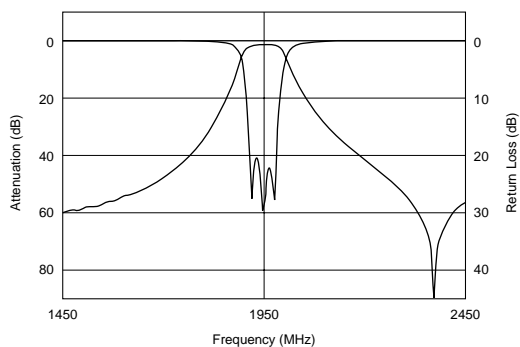
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Application	Part Number	fo (MHz)	Bandwidth (MHz)	IL at BW (dB max.)	Attenuation (dB min.)	Operation Temp. (°C)
EGSM	<b>DFCH4897MHDJAA</b>	897.5	35	4.6	13 (Fo±27.5MHz)	-30 to +85
ETACS	<b>DFCH4933MHDJAA</b>	933.5	33	4.6	15 (Fo±28.5MHz)	-30 to +85
EGSM	<b>DFCH4942MHDJAA</b>	942.5	35	4.6	13 (Fo±27.5MHz)	-30 to +85

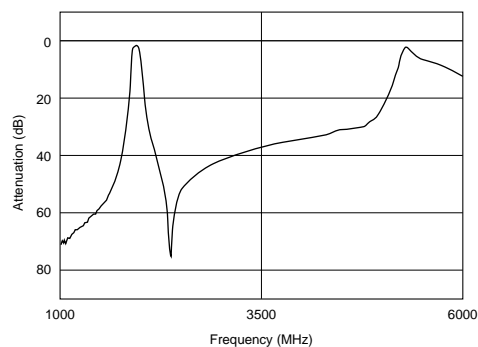
1. Low insertion loss for using high Q-value dielectric resonators
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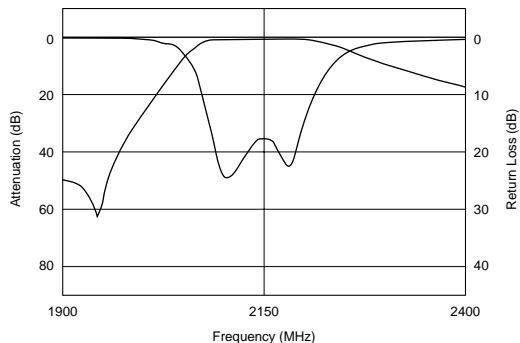
## Pass Band: DFCH31G95HDHAA



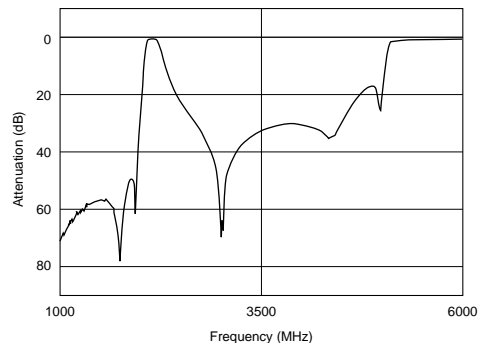
Spurious: DFCH31G95HDHAA



Pass Band: DFCH32G14HDHA



Spurious: DFCH32G14HDHA





Application	Part Number	fo (MHz)	Bandwidth (MHz)	IL at BW (dB max.)	Attenuation (dB min.)	Operation Temp. (°C)
GPS	<b>DFCH21G57HDHAA</b>	1575.5	2	0.9	16 (Fo-140MHz)	-30 to +85
PHS	<b>DFCH21G90HDJAA</b>	1907.5	25	0.7	35 (Fo-227.5MHz)	-30 to +85
WLAN2.4	<b>DFCH22G44HDHAA</b>	2442	84	1.2	15 (Fo±250MHz)	-30 to +85
WLAN2.4	<b>DFCH22G45HDHAA</b>	2450	100	1.0	16 (Fo-250MHz)	-30 to +85
WLAN2.4	<b>DFCH22G48HDHAA</b>	2484	26	2.5	47 (Fo-270MHz)	-30 to +85
VICS	<b>DFCH22G50HDHAA</b>	2500	4	2.4	10 (Fo±60MHz)	-30 to +85
MSAT	<b>DFCH31G54HDJAA</b>	1542	34	3.0	30 (1626.5 to 1660.5MHz)	-30 to +85
MSAT	<b>DFCH31G64HDJAA</b>	1643.5	34	3.0	30 (1525 to 1559MHz)	-30 to +85
DCS1800	<b>DFCH31G74HDJAA</b>	1747.5	75	2.0	8 (Fo±80MHz)	-30 to +85
DCS1800	<b>DFCH31G84HDJAA</b>	1842.5	75	2.0	8 (Fo±80MHz)	-30 to +85
PCS1.9	<b>DFCH31G88HDJAA</b>	1880	60	2.2	15 (Fo±100MHz)	-30 to +85
W-CDMA	<b>DFCH31G95HDHAA</b>	1950	60	1.8	45 (1550MHz)	-30 to +85
PCS1.9	<b>DFCH31G96HDJAA</b>	1960	60	2.2	15 (Fo±100MHz)	-30 to +85
W-CDMA	<b>DFCH32G14HDHAA</b>	2140	60	1.3	52 (1325 to 1385MHz)	-30 to +85
MMDS	<b>DFCH32G15HDHAB</b>	2156	20	3.0	36 (2050MHz)	-35 to +85
WLAN2.4	<b>DFCH32G44HDHAA</b>	2442	84	2.4	36 (Fo-250MHz)	-30 to +85
WLAN2.4	<b>DFCH32G45HDHAA</b>	2450	100	2.3	36 (Fo-250MHz)	-30 to +85
WLAN2.4	<b>DFCH32G48HDHAA</b>	2484	26	3.0	45 (Fo-270MHz)	-30 to +85
DCS1800	<b>DFCH41G74HDJAA</b>	1747.5	75	3.6	10 (Fo±57.5MHz)	-30 to +85
DCS1800	<b>DFCH41G84HDJAA</b>	1842.5	75	3.6	10 (Fo±57.5MHz)	-30 to +85
PCS1.9	<b>DFCH41G88HDJAA</b>	1880	60	4.5	12 (Fo±50MHz)	-30 to +85
PCS1.9	<b>DFCH41G96HDJAA</b>	1960	60	4.5	12 (Fo±50MHz)	-30 to +85
MMDS	<b>DFCH42G59HDHAB</b>	2593	186	1.8	50 (Fo-400MHz)	-35 to +85