

ZTA系列陶瓷谐振器 ZTA Series of Ceramic Resonator

1.79-60.00MHz

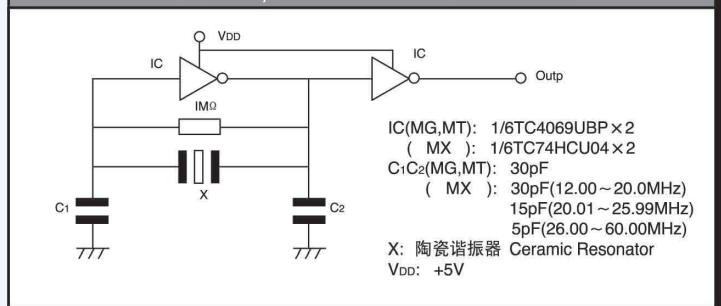
技术特性 TECHNICAL CHARACTERISTICS

型号 Part Number	频率范围 Frequency Range (MHz)	频率精度 Frequency Accuracy (25°C)(%)	温度稳定性 Stability in Temperature (-20~+80°C)(%)	工作温度 Operating Temperature (°C)	老化率 (10年) Aging For Ten Years (%)
ZTA□MG	1.79~6.00	±0.5	±0.3	-25~85	±0.3
ZTWS□MG	1.79~6.00	±0.5	±0.3	-25~85	±0.3
ZTALS□MG	3.00~8.00	±0.5	±0.3	-25~85	±0.3
ZTARS□MG	3.00~12.50	±0.5	±0.3	-25~85	±0.3
ZTA□MT	6.00~13.00	±0.5	±0.3	-25~85	±0.3
ZTA□MX	12.00~60.00	±0.5	±0.3	-25~85	±0.3
ZTARS□MX	16.00~60.00	±0.5	±0.3	-25~85	±0.3

外形与尺寸 FIGURE AND DIMENSIONS



测试电路 (用于MOS IC) TEST CIRCUIT FOR MOS IC



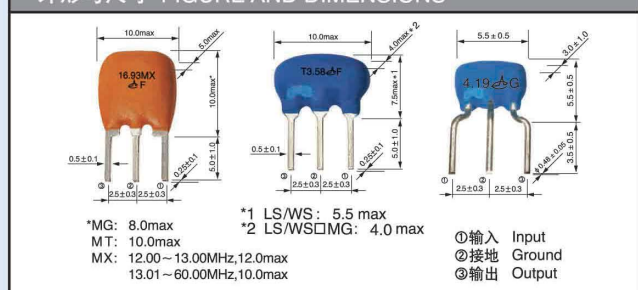
ZTT系列内藏电容陶瓷谐振器 ZTT Series of Ceramic Resonator With Built-in Capacitor

1.79-60.00MHz

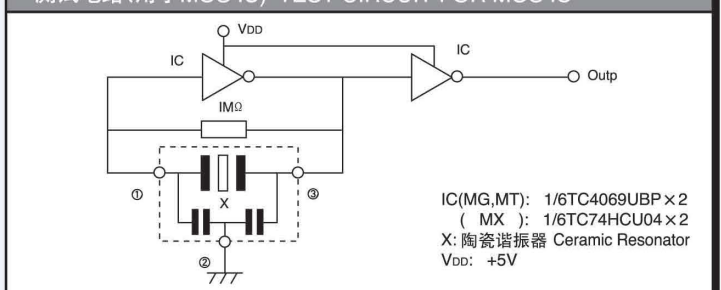
技术特性 TECHNICAL CHARACTERISTICS

型号 Part Number	频率范围 Frequency Range (MHz)	频率精度 Frequency Accuracy (25°C)(%)	温度稳定性 Stability in Temperature (-20~+80°C)(%)	工作温度 Operating Temperature (°C)	老化率 (10年) Aging For Ten Years (%)
ZTT□MG	1.79~6.00	±0.5	±0.3	-25~85	±0.3
ZTTWS□MG	1.79~6.00	±0.5	±0.3	-25~85	±0.3
ZTTLS□MG	3.00~8.00	±0.5	±0.3	-25~85	±0.3
ZTTRS□MG	3.00~12.50	±0.5	±0.3	-25~85	±0.3
ZTT□MT	6.00~13.00	±0.5	±0.3	-25~85	±0.3
ZTT□MX	12.00~60.00	±0.5	±0.3	-25~85	±0.3
ZTTRS□MX	16.00~60.00	±0.5	±0.3	-25~85	±0.3

外形与尺寸 FIGURE AND DIMENSIONS



测试电路 (用于MOS IC) TEST CIRCUIT FOR MOS IC

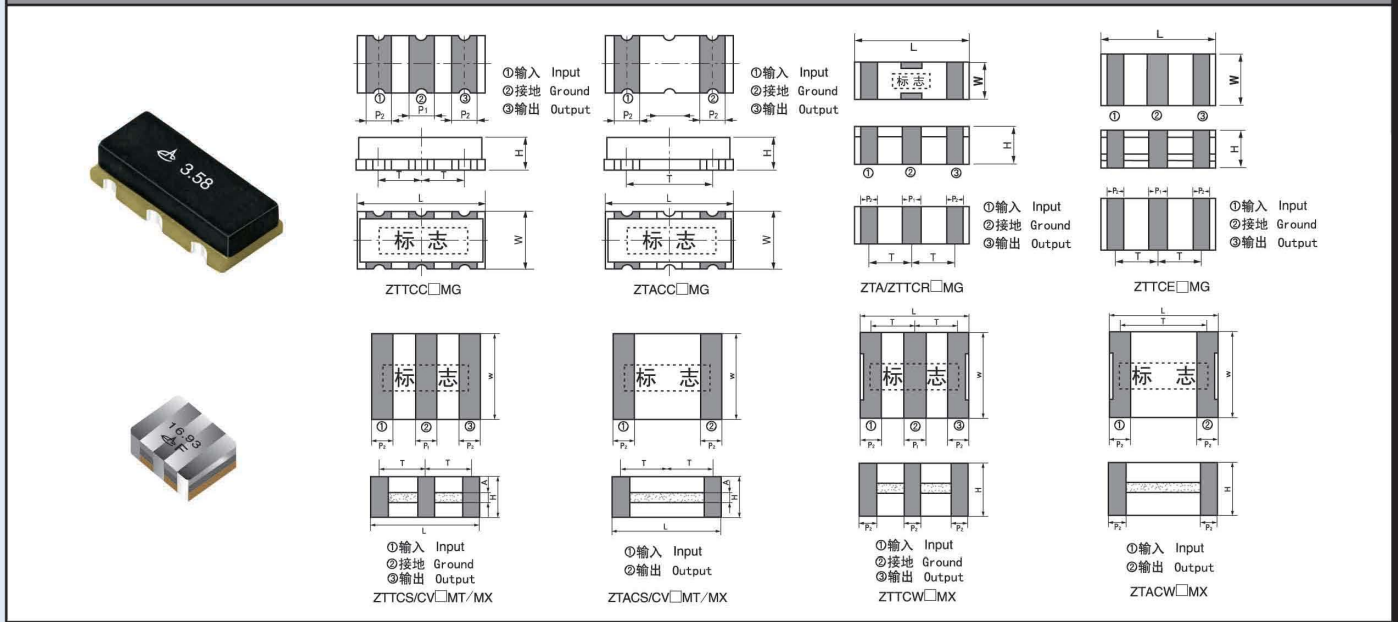


ZTACC/CR/CS/CV/CW□MG/MT/MX 系列片式陶瓷谐振器 ZTACC/CR/CS/CV/CW□MG/MT/MX Series of Ceramic Resonator(Chip type)	2.00-60.00MHz
ZTTCC/CR/CS/CV/CW□MG/MT/MX 系列片式陶瓷谐振器 ZTTCC/CR/CS/CV/CW□MG/MT/MX Series of Ceramic Resonator(Chip type)	2.00-60.00MHz

▶ 技术特性 TECHNICAL CHARACTERISTICS

型号 Part Number	频率范围 Frequency Range (MHz)	频率精度 Frequency Accuracy (%)	温度稳定性 Stability in Temperature (-20~+80°C)(%)	工作温度 Operating Temperature (°C)	老化率 (10年) Aging For Ten Years (%)
ZTACC□MG ZTTCC□MG	2.00-8.00	±0.5	±0.3	-25~85	±0.3
ZTACR□MG ZTTCR□MG	4.00-8.00	±0.5	±0.3	-25~85	±0.3
ZTTCE□MG	8.00-12.00	±0.5	±0.3	-25~85	±0.3
ZTACS□MT ZTTCS□MT	6.00-13.00	±0.5	±0.4	-25~85	±0.3
ZTACV□MT ZTTCV□MT	8.00-13.00	±0.5	±0.4	-25~85	±0.3
ZTACS□MX ZTTCS□MX	13.01-60.00	±0.5	±0.3	-25~85	±0.3
ZTACV□MX ZTTCV□MX	16.00-60.00	±0.5	±0.3	-25~85	±0.3
ZTACW□MX ZTTCW□MX	20.00-60.00	±0.5	±0.3	-25~85	±0.3

外型与尺寸 FIGURE AND DIMENSIONS



外型尺寸 标记 型号 Part Number	尺寸 Dimensions(mm)					
	L	W	H	P1	P2	T
ZTACC□MG ZTTCC□MG	7.4±0.2	3.4±0.2	1.8±0.2	1.2±0.2	1.2±0.2	5.0±0.2 2.5±0.2
ZTACR□MG ZTTCR□MG	4.5±0.2	2.0±0.2	1.2max	0.8±0.2	0.8±0.2	1.5±0.2
ZTTCE□MG	3.2±0.2	1.3±0.2	1.0max	0.4±0.2	1.2±0.2	±0.3
ZTACS□MT/MX ZTTCS□MT/MX	4.7±0.2	4.1±0.2	(1.2+A)±0.2	1.0±0.2	0.8±0.2	3.9±0.2 1.95±0.2
ZTACV□MT/MX ZTTCV□MT/MX	3.7±0.2	3.1±0.2	(1.0+A)±0.2	0.9±0.2	0.7±0.2	3.0±0.2 1.5±0.2
ZTACW□MX ZTTCW□MX	2.5±0.2	2.0±0.2	1.2max	0.5±0.2	0.4±0.2	2.0±0.2 1.0±0.2

注:其中A为振子厚度,随着频率不同而不同,其范围为:0.1-0.7mm Note:A stands for thickness of the ceramic element, which varies with the frequency. The range of the thickness is 0.1 to 0.7mm
ZTA系列产品无中间(接地)电极 No middle terminal for ZTA series

调频接收机用 LT10.7M□ 系列陶瓷滤波器 LT10.7M□ Series of Ceramic Filter For FM Receiver

10.7MHz

▶ 技术特性 TECHNICAL CHARACTERISTICS

型号 Part Number	3分贝带宽 3dB Band Width (kHz)	20分贝带宽 20dB Band Width (kHz) max	插入损耗 Insertion Loss (dB) max	阻带衰耗 Spurious Attenuation (9-12MHz)(dB)min
LT10.7MA5	280±50	650	6	30
LT10.7MS2	230±50	600	6	40
LT10.7MS3	180±40	520	7	40

输入/输出阻抗: 330Ω
Input/Output Impedance: 330Ω

低损耗 LT10.7M□A10 系列陶瓷滤波器 LT10.7M□A10 Series of Ceramic Filter(Low-Loss Type)

10.7MHz

▶ 技术特性 TECHNICAL CHARACTERISTICS

型号 Part Number	3分贝带宽 3dB Band Width (kHz)	20分贝带宽 20dB Band Width (kHz) max	插入损耗 Insertion Loss (dB)	阻带衰耗 Spurious Attenuation (9-12MHz)(dB)min
LT10.7MA5A10	280±50	590	2.5±2.0	30
LT10.7MS2A10	230±50	520	3.0±2.0	35
LT10.7MS3A10	180±40	470	3.5±1.5	35
LT10.7MJA10	150±40	360	4.5±2.0	35

输入/输出阻抗: 330Ω
Input/Output Impedance: 330Ω

宽窄带型 LT10.7M□ 系列陶瓷滤波器 Wide/Narrow Band-width LT10.7M□ Series of Ceramic Filter

10.7MHz

▶ 技术特性 TECHNICAL CHARACTERISTICS

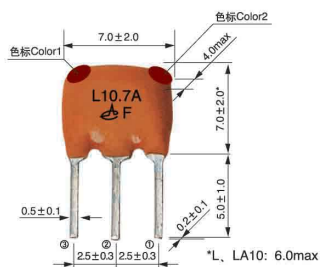
型号 Part Number	3分贝带宽 3dB Band Width (kHz)	20分贝带宽 20dB Band Width (kHz) max	插入损耗 Insertion Loss (dB)	阻带衰耗 Spurious Attenuation (9-12MHz)(dB)min
LT10.7MA21	400min	950	3.0±2.0	20
LT10.7MA19	±175min	950	3.0±2.0	20
LT10.7MA20	330±50	680	4.0±2.0	30
LT10.7MHY	110±30	350	5.5±2.0	30
LT10.7MFP	20min	95	6.0max	24(10.7±1.0MHz)

输入/输出阻抗: 470Ω (A19), 330Ω (A21, A20, HY), 600Ω (FP)
Input/Output Impedance: 470Ω (A19), 330Ω (A21, A20, HY), 600Ω (FP)

10.7M 陶瓷滤波器 10.7M Series of Ceramic Filter

10.7MHz

外形与尺寸 FIGURE AND DIMENSIONS

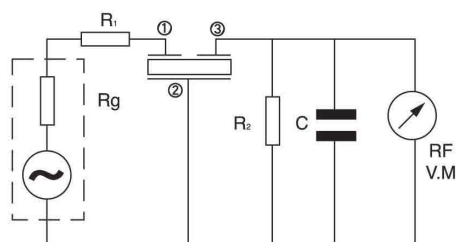


色标 1 Color1: A21,A20,A19,A5,S2,JA10
色标 2 Color2: S3,HY

规格 STANDARD RULE

中心频率 CENTER FREQUENCY	色标 Color
D:10.640MHz±30KHz	黑 Black
B:10.670MHz±30KHz	蓝 Blue
A:10.700MHz±30KHz	红 Red
C:10.730MHz±30KHz	橙 Orange
E:10.760MHz±30KHz	白 White

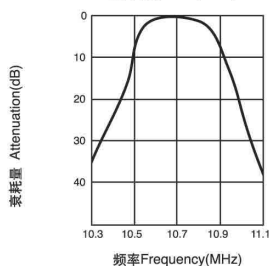
测试电路 TEST CIRCUIT



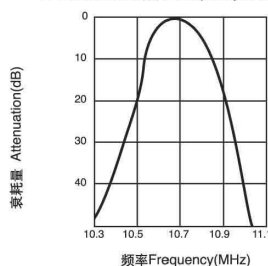
$R_g+R_1=R_2=330\Omega$ $C=10PF$
(包括寄生电容和射频电压表的输入电容)
(Including stray capacitance and input capacitance of RF voltmeter)

特性曲线 CHARACTERISTICS

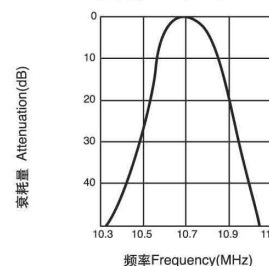
LT10.7MA5 频率特性 Frequency Characteristics



LT10.7MS2 频率特性 Frequency Characteristics



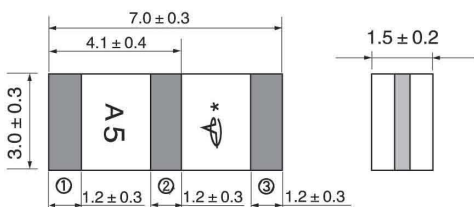
LT10.7MS3 频率特性 Frequency Characteristics



片式 LTCA/CV10.7M 系列陶瓷滤波器 Chip Type LTCA/CV10.7M Series of Ceramic Filter

10.7MHz

外形与尺寸 FIGURE AND DIMENSIONS



①输入 Input
②接地 Ground
③输出 Output

技术特性 TECHNICAL CHARACTERISTICS

型号 Part Number	3分贝带宽 3dB Band Width (KHz)	20分贝带宽 20dB Band Width (KHz)max	插入损耗 Insertion Loss (dB)	阻带衰耗 Spurious Attenuation (9-12MHz)(dB)min
LTCA10.7MJ	150±40	430	≤10.0	30
LTCV10.7MJ	150±40	380	5.5±2.0	35
LTCA10.7MS3	180±40	520	≤6.0	30
LTCV10.7MS3	180±40	470	4.0±2.0	35
LTCA10.7MS2	230±50	570	≤6.0	30
LTCV10.7MS2	230±50	510	3.5±2.0	35
LTCA10.7MA5	280±50	650	≤6.0	30
LTCV10.7MA5	280±50	590	3.0±2.0	35
LTCV10.7MA20	330±50	700	3.0±2.0	30
LTCV10.7MA19	$f_n \pm 175\text{min}$	950	3.0±2.0	20 (5-15MHz)

输入/输出阻抗: 330Ω, 470Ω (A19) Input/Output Impedance: 330Ω, 470Ω (A19)

片式 LTCS10.7M 系列陶瓷滤波器 Chip Type LTCS10.7M Series of Ceramic Filter

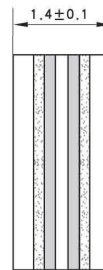
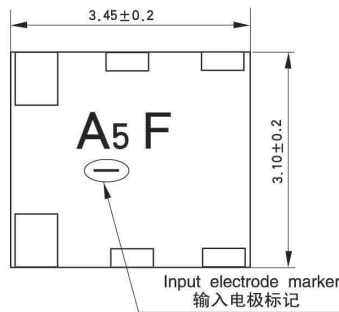
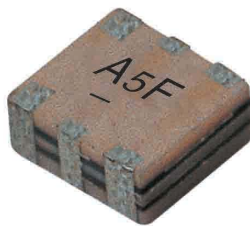
10.7MHz

技术特性 TECHNICAL CHARACTERISTICS

型号 Part Number	3分贝带宽 3dB Band Width (KHz)	20分贝带宽 20dB Band Width (KHz)max	插入损耗 Insertion Loss (dB)	阻带衰减 Spurious Attenuation (9-12MHz)(dB)min
LTCS10.7MS3	180 ± 40	470	4.5 ± 2.0	30
LTCS10.7MS2	230 ± 50	510	3.5 ± 2.0	30
LTCS10.7MA5	280 ± 50	590	3.0 ± 2.0	30
LTCS10.7MA20	330 ± 50	700	3.0 ± 2.0	30

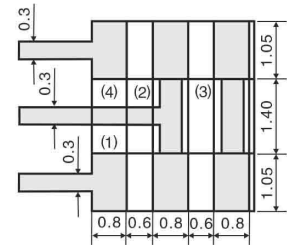
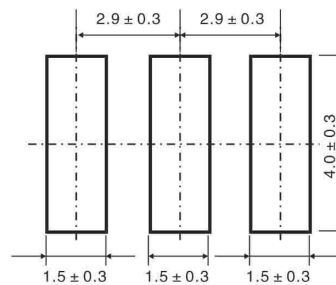
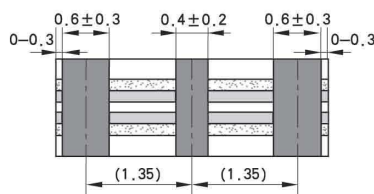
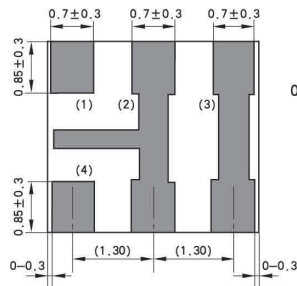
输入/输出阻抗: 330Ω
Input/Output Impedance: 330Ω

外形与尺寸 FIGURE AND DIMENSIONS



- (1): Input 输入
 - (2): Ground 接地
 - (3): Float(signal line) 空脚
 - (4): Output 输出
- unit 单位: mm

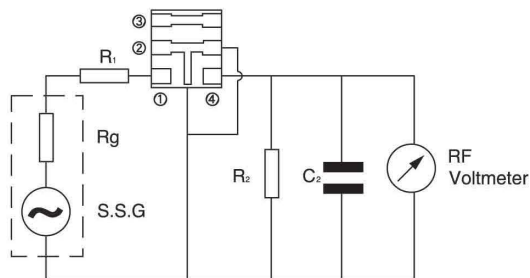
使用表面组装技术安装时, 印刷线路板的焊接区, 如图示:
RECOMMENDED LAND PATTERN:



LTCA/CV10.7M□型

LTCS10.7M□型

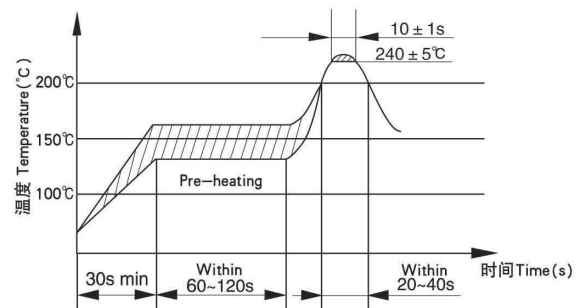
测试电路 TEST CIRCUIT



$R_g + R_1 = R_2 = 330\Omega$
 $C = 10PF$
(包括寄生电容和射频电压表的输入电容)
(Including stray capacitance and input capacitance of RF voltmeter)

- ①输入 Input
- ②接地 Ground
- ③空脚 Float
- ④输出 Output

推荐使用再流焊, 焊接条件如图:
RECOMMENDED REFLOW SOLDERING
STANDARD CONDITIONS:



调频用 JT10.7M 系列陶瓷鉴频器

JT10.7M Series of Ceramic Discriminator For FM

调频用 JTCV10.7M 系列片式陶瓷鉴频器

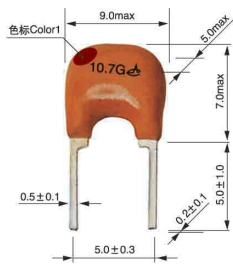
JTCV10.7M Series of Ceramic Discriminator For FM (Chip type)

10.7MHz

技术特性 TECHNICAL CHARACTERISTICS

型号 Part Number	f ₀ 点鉴频输出 Demodulation Output at f ₀ (mv)min	f ₀ 点失真度 Distortion Factor at f ₀ (%)max	3dB带宽 Demodulation 3dB Band Width (KHz)max	适用IC Applicable IC
JT10.7MG1 JTCV10.7MG1	25	1.0	345	CX-2009, CX-20111
JT10.7MG3 JTCV10.7MG3	650	1.0	±150	TA7303P, TA7130, μPC1028H, LA1150
JT10.7MG16 JTCV10.7MG16	60~90	0.9	300	TA8122AN
JT10.7MG18 JTCV10.7MG18	60~90	0.9	300	TA8132N
JT10.7MG33 JTCV10.7MG33	45	0.7	250	TA2007
JT10.7MG80 JTCV10.7MG80	65	1.0	300	TA2104AFN
JT10.7MG82 JTCV10.7MG82	90	0.8	320	TA2099N
JT10.7MG92 JTCV10.7MG92	60	1.0	300	TA2132P
JT10.7MC1 JTCV10.7MC1	35	1.0	242	CXA1019M, CX-20091

外形与尺寸 FIGURE AND DIMENSIONS



JT10.7MG□/C□



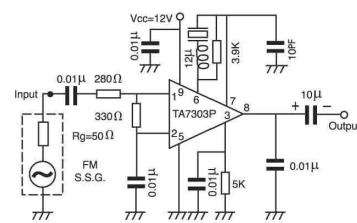
JTCV10.7MG□/C□

规格 STANDARD RULE

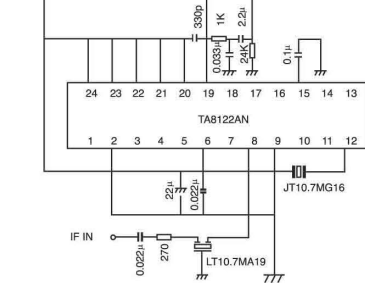
中心频率 Center Frequency	D 10.640MHz ±30KHz	B 10.670MHz ±30KHz	A 10.700MHz ±30KHz	C 10.730MHz ±30KHz	E 10.760MHz ±30KHz
色标 Color	黑 Black	蓝 Blue	红 Red	橙 Orange	白 White

测试电路 TEST CIRCUIT

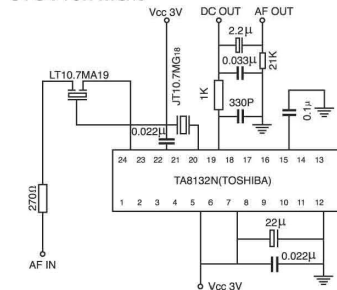
JT10.7MG₃
JTCV10.7MG₃



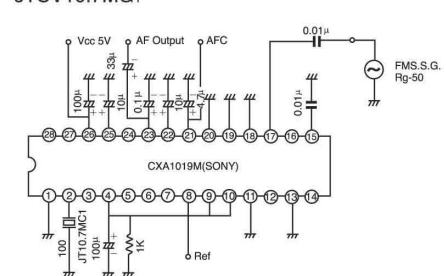
JT10.7MG₁₆
JTCV10.7MG₁₆



JT10.7MG₁₈
JTCV10.7MG₁₈



JT10.7MC₁
JTCV10.7MC₁



LTC455/450U/W 系列通讯机用陶瓷滤波器 LTC455/450U/W Series of Ceramic Filter For Communication

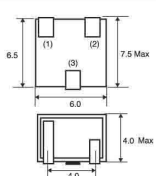
450-470kHz

技术特性 TECHNICAL CHARACTERISTICS

型号 Part Number	中心频率 Center Frequency (fn)(kHz)	插入损耗 Insertion Loss (dB) max		通带波动 Pass Band Ripple (dB)max	6分贝带宽 6dB Band Width (kHz) min	40分贝带宽 40dB Band Width LTC455U(kHz)min	50分贝带宽 50dB Band Width LTC455W(kHz)min	阻带衰减 Spurious Attenuation (455±100kHz)(dB)min		输入/输出阻抗 Input/Output Impedance(Ω)
		LTC455U	LTC455W					(LTC455U)	(LTC455W)	
LTC455DU LTC455DW	455 ± 1.5	4	4	2	± 10.0	± 20	± 20	27	45	1500
LTC455EU LTC455EW	455 ± 1.5	6	6	2	± 7.5	± 15	± 15	27	45	1500
LTC455FU LTC455FW	455 ± 1.5	6	6	2	± 6.0	± 12.5	± 12.5	27	45	1500
LTC455GU LTC455GW	455 ± 1.5	6	6	2	± 4.5	± 10	± 10	25	45	1500
LTC455HU LTC455HW	455 ± 1.5	6	6	2	± 3.0	± 9.0	± 9.0	25	45	2000

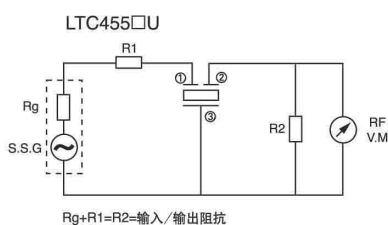
*也适用中心频率450kHz的滤波器
Center frequency 450kHz is also available

外形与尺寸 FIGURE AND DIMENSIONS

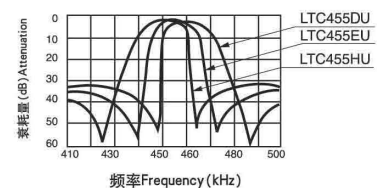


①输入 Input
②输出 Output
③接地 Ground

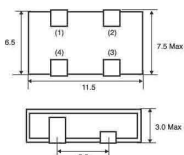
测试电路 TEST CIRCUIT



特性曲线 CHARACTERISTICS

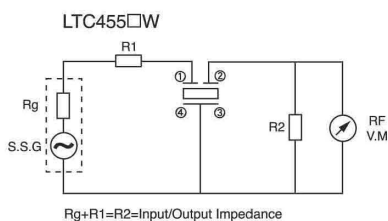


外形与尺寸 FIGURE AND DIMENSIONS

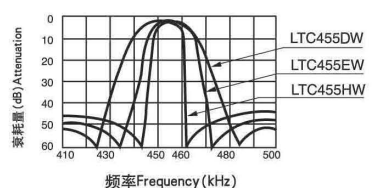


①输入 Input
②输出 Output
③接地 Ground

测试电路 TEST CIRCUIT



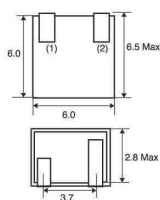
特性曲线 CHARACTERISTICS



JTC 系列通讯机用陶瓷鉴频器 JTC Series of Ceramic Discriminator For Communication

455kHz

外形与尺寸 FIGURE AND DIMENSIONS



①输入 Input
②输出 Output

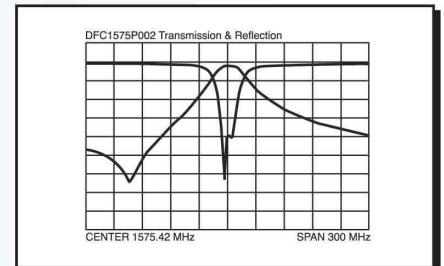
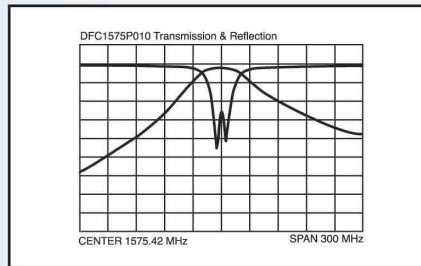
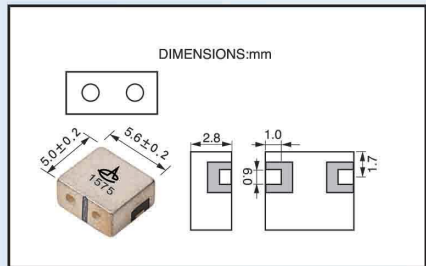
技术特性 TECHNICAL CHARACTERISTICS

型号 Part Number	中心频率 Center Frequency (fn)(kHz)	解调音频 3分贝带宽 Recovered Audio 3dB BW (kHz)min	解调音频输出 Recovered Audio Output (mV)min	失真度 Distortion Factor (At fn)(%)max	适用IC Applicable IC
JTC455C24	455 ± 2	± 4.0	100 ± 40	2.0	TA31136
JTC455C28	455 ± 2	± 4.0	40 ± 20	3.0	TA31142
JTC455C29	455 ± 2	± 4.0	125 ± 30	2.5	NE605
JTC455C32	455 ± 2	± 4.0	40 ± 20	3.0	TA31143
JTC455C49	455 ± 2	± 4.0	45 ± 20	3.0	MC3361
JTC455C50	455 ± 2	± 4.0	65 ± 20	4.0	CXA3117N

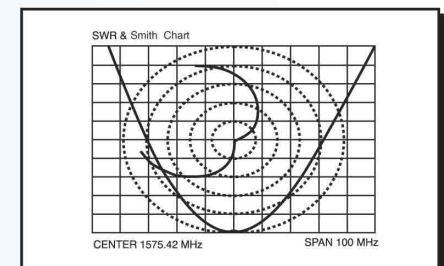
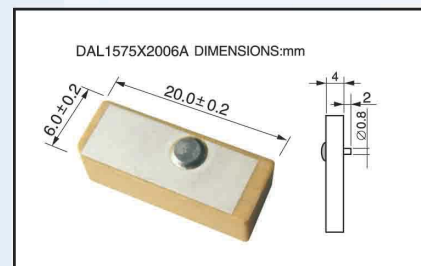
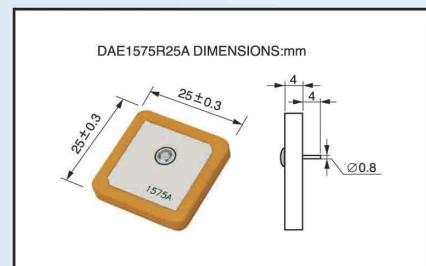
1575MHz GPS 用介质滤波器 1575MHz Dielectric Filters for GPS

技术特性 TECHNICAL CHARACTERISTICS

型号 Part Number	中心频率 Center Frequency (MHz)	带宽 Band Width (MHz)	插入损耗 Insertion Loss (dB) max	通带波动 Pass Band Ripple (dB)max	驻波比 VSWR(in BW)	阻带衰减 Spurious Attenuation (dB)min
DFC1575P010	1575.42	10	≤3.0	≤0.5	≤2.0	≥19 (fo-50M) ≥15 (fo+50M)
DFC1575P002	1575.42	2	≤3.5	≤0.5	≤2.0	≥23 (fo-50M) ≥18 (fo+50M)



介质天线元件 Dielectric Antenna Elements



技术特性 TECHNICAL CHARACTERISTICS

型号 Part Number	尺寸 Size(mm)	标称中心频率 Nominal Center Frequency(fn)(MHz)	-10dB带宽 Band Width (MHz) min	驻波比 VSWR(inBW) max	接地板尺寸 Ground Plane Size (mm)
DAE1575R25□□A	25×25	1575.42	15	2.0	70×70
DAE1575R25□□B	25×25	1575.42	15	2.0	70×70
DAE1575R25□□C	25×25	1575.42	8	2.0	35×35
DAE1575R20□□A	20×20	1575.42	8	2.0	40×40
DAE1575R18□□A	18×18	1575.42	5	2.0	40×40
DAE1575R18□□B	18×18	1575.42	5	2.0	40×40
DAE1575R15□□A	15×15	1575.42	5	2.0	50×50
DAE1575R13□□A	13×13	1575.42	5	2.0	50×50
DAE1575R13□□B	13×13	1575.42	5	2.0	50×50
DAL1575X2006□□A	20×6	1575.42			20X6
DAL1575X1606□□A	16×6	1575.42			20X6
DAE2338L25□□B	25×25	2338	48	2.0	70×70
DAE2338L25□□D	25×25	2338	56	2.0	40×40
DAE2338L20□□C	20×20	2338	56	2.0	26×50
DAE2338L18□□C	18×18	2338	30	2.0	40×40
DAE2338L28□□B	28×28	2338	120	2.0	45×60
DAE2326L28□□B	28×28	2326	120	2.0	60×45

TA7C/6C/5C/3C(A) 型片式高频石英晶体元件
TA7C/6C/5C/3C(A) Series Of Quartz Crystal Unit(Chip Type)

7.600-40.000MHz

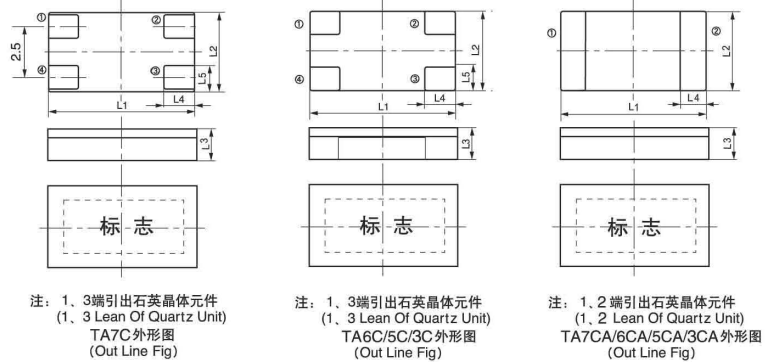
技术特性 TECHNICAL CHARACTERISTICS

型号 Part Number	标称频率范围 Frequency Range (MHz)	基频或泛音 Fundamental /Overtone	调整频差 $\times 10^{-6}$ Adjustment Tolerance $\times 10^{-6}$	温度频差 $\times 10^{-6}$ Temp.Range Tolerance Over $\times 10^{-6}$	最大谐振电阻 Resonance Resistance (Ω)Max
TA3C(A)	12.000-19.999	基频 Fund.	± 30	± 50 (-20°C~70°C)	150
	20.000-25.999				100
	26.000-36.000				60
TA5C(A)	10.000-11.999				120
	12.000-14.399				80
	14.400-36.000				50
TA6C(A)	8.000-11.999				80
	12.000-16.000				60
	16.001-40.000				40
TA7C(A)	7.600-11.999				80
	12.000-16.000				60
	16.001-35.000				40

外型与尺寸 FIGURE AND DIMENSIONS

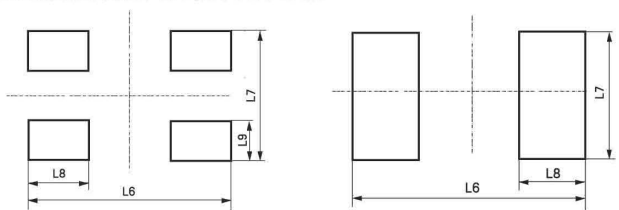


外型与尺寸 FIGURE AND DIMENSIONS



型号 Part Number	尺寸标记 Dimensions and Marker (mm)								
	L_1	L_2	L_3	L_4	L_5	L_6	L_7	L_8	L_9
TA3C(A)	3.2 ± 0.3	2.5 ± 0.3	1.0 ± 0.2	1.1 ± 0.2	0.9 ± 0.2	3.4 ± 0.2	2.7 ± 0.2	1.3 ± 0.2	1.1 ± 0.2
TA5C(A)	5.0 ± 0.3	1.0 ± 0.3	1.0 ± 0.2	1.4 ± 0.2	1.0 ± 0.2	5.2 ± 0.2	3.4 ± 0.2	1.6 ± 0.2	1.2 ± 0.2
TA6C(A)	6.0 ± 0.3	1.0 ± 0.3	1.0 ± 0.2	1.5 ± 0.2	1.2 ± 0.2	6.2 ± 0.2	3.7 ± 0.2	1.8 ± 0.2	1.4 ± 0.2
TA7C(A)	7.0 ± 0.3	1.0 ± 0.3	1.0 ± 0.2	1.5 ± 0.2	1.2 ± 0.2	7.2 ± 0.2	3.7 ± 0.2	2.0 ± 0.2	1.4 ± 0.2

使用表面贴装技术安装时，推荐印制电路板上的焊区如图：
RECOMMENDED LAND PATTERN:



TA7C/6C/5C/3C焊区 (Joining Area) TA7CA/6CA/5CA/3CA焊区 (Joining Area)
尺寸见“外型与尺寸” See “FIGURE AND DIMENSIONS”

推荐使用再流焊，焊接条件如图：
RECOMMENDED REFLOW SOLDERING
STANDARD CONDITIONS:

