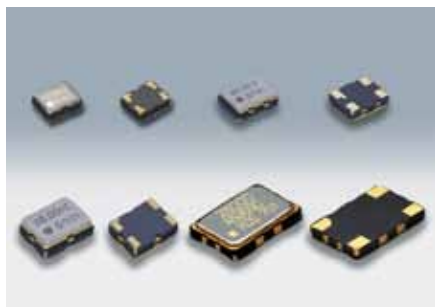


SMD VC-TCXO/TCXO

DSA211SCM/DSA221SCM/DSA321SCM/DSA535SC

DSB211SCM/DSB221SCM/DSB321SCM/DSB211SCB/DSB221SCB/DSB321SCB/DSB535SC



Actual size DSA211SCM DSA221SCM DSA321SCM DSA535SC

Features

- Low voltage operation
- Low phase noise
- Single packaged structure
- Prevention of moisture packing is unnecessary.
Moisture Sensitivity Level: LEVEL 1
(IPC/JEDEC J-STD-033)

Applications

- Mobile phones (W-CDMA, CDMA2000, TD-SCDMA, GSM, GPRS, Mobile W-PHS)
- Other wireless radio communications (WiMAX)
- GPS



[Type]

VC-TCXO	TCXO	TCXO(Stand-by Function)	Size
DSA211SCM	DSB211SCM	DSB211SCB	2016 size
DSA221SCM	DSB221SCM	DSB221SCB	2520 size
DSA321SCM	DSB321SCM	DSB321SCB	3225 size
DSA535SC	DSB535SC	-	5032 size

Standard Specification

Type	VC-TCXO				TCXO						
Item	DSA211SCM	DSA221SCM	DSA321SCM	DSA535SC	DSB211SCM	DSB221SCM	DSB321SCM	DSB211SCB (Stand-by Function)	DSB221SCB (Stand-by Function)	DSB321SCB (Stand-by Function)	DSB535SC
Frequency Range	12.288~52MHz	9.6~52MHz		10~30MHz	12.288~52MHz	9.6~52MHz		12.288~52MHz	9.6~52MHz		10~30MHz
Standard Frequency	13/19.2/20/26/38.4/40/52MHz			13/19.2/26MHz	13/19.2/20/26/38.4/40/52MHz						13/ 19.2/ 26MHz
Supply Voltage Range	+1.7~+3.5V			+2.3~+5.5V	+1.7~+3.5V						+2.3~+5.5V
Supply Voltage(Vcc)	+1.8V/ +2.6V/ +2.8V/ +3.0V/ +3.3V			+2.6V/ +2.8V/ +3.0V/ +3.3V	+1.8V/ +2.6V/ +2.8V/ +3.0V/ +3.3V						+2.6V/ +2.8V/ +3.0V/ +3.3V
Current Consumption	+1.5mA max.(f≤26MHz)			+1.1mA max.(F≤15MHz)	+1.5mA max.(F≤26MHz)						+1.1mA max.(F≤15MHz)
Stand-by Current	—							+3.0μA max.		—	
Output Level	0.8Vp-p min.(Clipped Sinewave / DC-coupled)										
Output Load	10kΩ//10pF										
Frequency Stability											
Tolerance	±1.5×10 ⁻⁶ max.(After 2 reflows)										
vs. Temperature	±2.0×10 ⁻⁶ max./ -30~+85℃ @CDMA ±2.5×10 ⁻⁶ max./ -30~+85℃ @GSM										
vs. Supply Voltage	±0.2×10 ⁻⁶ max.(Vcc±5%)										
vs. Load Variation	±0.2×10 ⁻⁶ max.(10kΩ//10pF±10%)										
vs. Aging	±1.0×10 ⁻⁶ max. /year										
Frequency Control	±7.8×10 ⁻⁶ ~±12×10 ⁻⁶ / Vcont=+1.4V±1V @CDMA ±9.0×10 ⁻⁶ ~±15×10 ⁻⁶ / Vcont=+1.5V±1V @Vcc≥+2.6V ±9.0×10 ⁻⁶ ~±15×10 ⁻⁶ / Vcont=+0.9V±0.6V @Vcc=+1.8V				—						
Control Sensitivity											
Response Slope	Positive				—						
Start up Time	2.0ms max.										
Output Enable Time	—				—			2.0ms max.			—
Phase Noise	[f≤15MHz]	[15<f≤26MHz]	[26<f≤40MHz]	[f≤15MHz]	[15MHz<f]	[f≤15MHz]	[15<f≤26MHz]	[26<f≤40MHz]	[f≤15MHz]	[15MHz<f]	
Offset 100Hz	-115dBc/Hz	-110dBc/Hz	-105dBc/Hz	-110dBc/Hz	-105dBc/Hz	-115dBc/Hz	-110dBc/Hz	-105dBc/Hz	-110dBc/Hz	-105dBc/Hz	
Offset 1kHz	-135dBc/Hz	-130dBc/Hz	-125dBc/Hz	-130dBc/Hz	-125dBc/Hz	-135dBc/Hz	-130dBc/Hz	-125dBc/Hz	-130dBc/Hz	-125dBc/Hz	
Offset 10kHz	-145dBc/Hz	-140dBc/Hz	-135dBc/Hz	-145dBc/Hz	-140dBc/Hz	-145dBc/Hz	-140dBc/Hz	-135dBc/Hz	-145dBc/Hz	-140dBc/Hz	
Offset 100kHz	-145dBc/Hz	-145dBc/Hz	-145dBc/Hz	-145dBc/Hz	-145dBc/Hz	-145dBc/Hz	-145dBc/Hz	-145dBc/Hz	-145dBc/Hz	-145dBc/Hz	
Packing Unit	2000pcs./reel(φ180)			4000pcs./reel(φ330)	2000pcs./reel(φ180)						4000pcs./reel(φ330)

Consult our sales representative for other specifications.

SMD VC-TCXO/TCXO

For Mobile communications / GPS / WiMAX

■ Dimensions[mm]

DSA211SCM/DSB211SCM/DSB211SCB

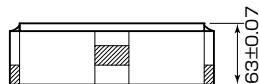
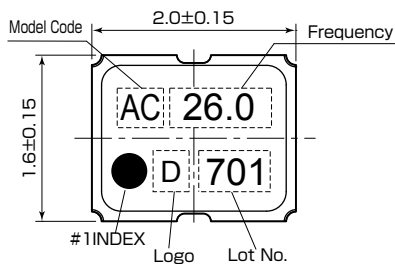
Model Code

AC : VC-TCXO (DSA211SCM)

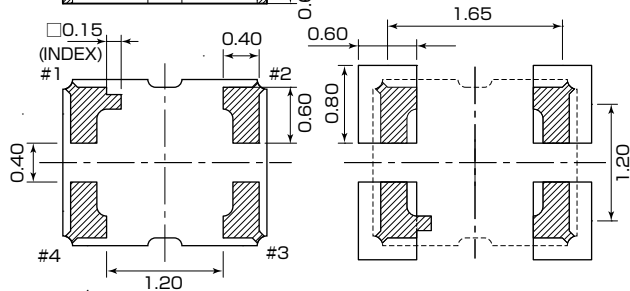
BC : TCXO (DSB211SCM)

S : TCXO (DSB211SCB Stand-by Function)

Pin Connections	
Pin No.	Connection
#1	Vcont(VC-TXO)/GND(TCXO) ENABLE/DISABLE(Stand-by Function)
#2	GND
#3	Output
#4	V _{CC}



■ Recommended Land Pattern
<Top View>



DSA221 SCM/DSB221 SCM/DSB221 SCB

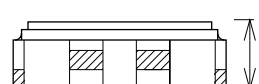
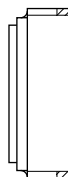
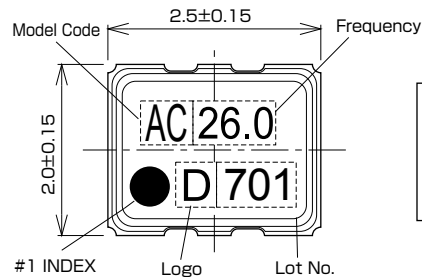
Model Code

AC : VC-TCXO (DSA221SCM)

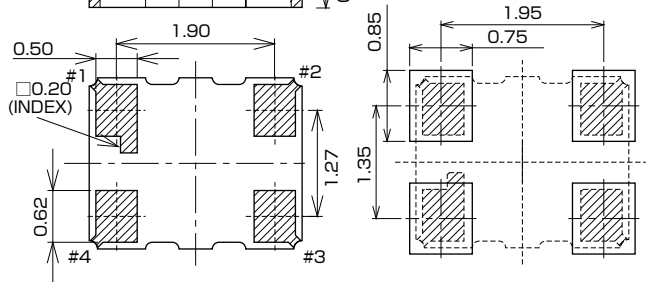
BC : TCXO (DSB221SCM)

S : TCXO (DSB221SCB Stand-by Function)

Pin Connections	
Pin No.	Connection
#1	Vcont(VC-TXO)/GND(TCXO) ENABLE/DISABLE(Stand-by Function)
#2	GND
#3	Output
#4	V _{CC}



■ Recommended Land Pattern
<Top View>



DSA321SCM/DSB321SCM/DSB321SCB

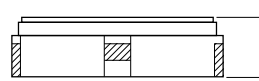
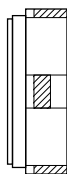
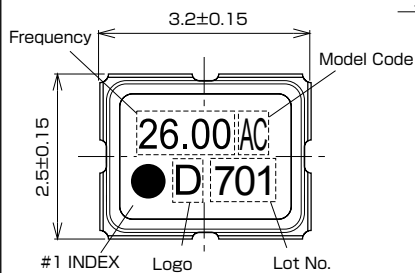
Model Code

AC : VC-TCX0 (DSA321SCM)

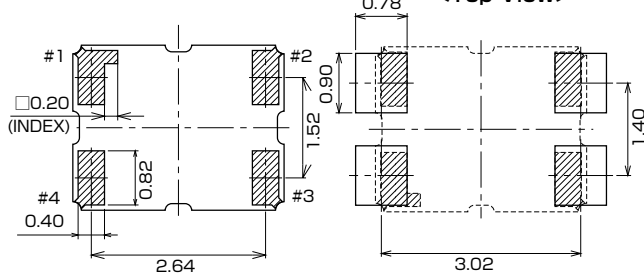
BC : TCXO (DSB321SCM)

CB : TCX0 (DSB321SCB Stand-by Function)

Pin Connections	
Pin No.	Connection
#1	Vcont(VC-TCXO)/GND(TCXO) ENABLE/DISABLE(Stand-by Function)
#2	GND
#3	Output
#4	Vcc



0.78 **Recommended Land Pattern** <Top View>



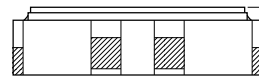
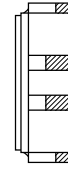
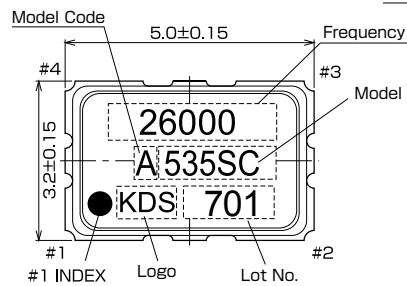
DSA535SC/DSB535SC

Model Code

A : VC-TCX0 (DSA535SC)

B : TCXO (DSB535SC)

Pin No.	Connection
#1	V _{cont} (VC-TCXO)/ GND(TCXO)
#2	GND
#3	Output
#4	V _{cc}



■ Recommended Land Pattern
<Top View>

