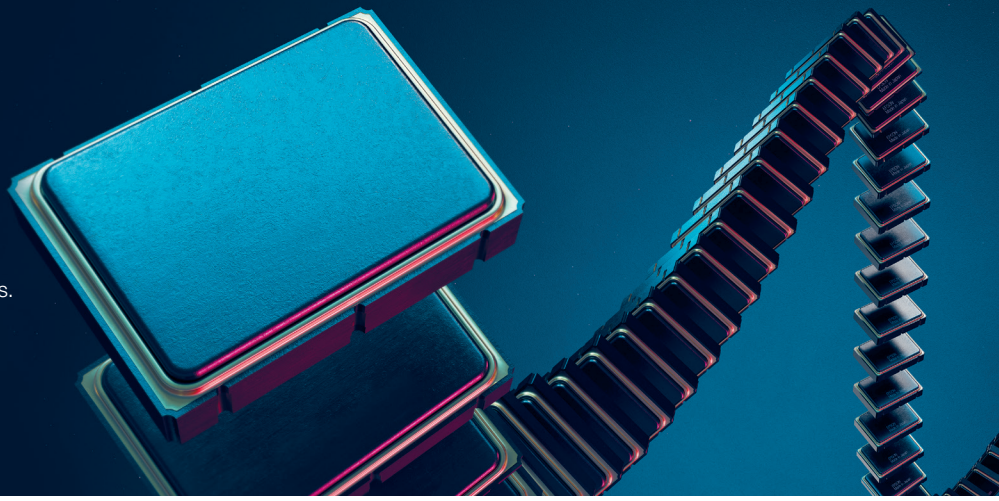


Timing Matters

Epson is the world's premier supplier of timing devices.



Industrial / Consumer

Crystal Units & Oscillators—kHz

FC1610AN / BN	
32.768 kHz	
FC2012SN	
32.768 kHz / -40° C to +105° C	
FC2012AN	
32.768 kHz / -40° C to +105° C	
FC3215AN	
32.768 kHz / -40° C to +105° C	
SG-3031CM	
32.768 kHz Crystal Oscillator	
TG-3541CE	
32.768 kHz TCXO	

Crystal Units—MHz

FA1008AN	
40 MHz to 100 MHz	
FA1210AN	
32 MHz to 100 MHz	
FA-118T	
24 MHz to 54 MHz	
FA-128	
19.2 MHz to 54 MHz	
FA-20H	
12 MHz to 54 MHz	
TSX-3225	
16 MHz to 48 MHz	

For automotive-grade AEC-Q100 / Q200 versions supporting -40° C to +125° C operating temperature, please contact Epson for details and availability.

Crystal Oscillators

SG2016CAN	
20 Std. Frequencies / -40° C to +105° C	
SG-210STF	
20 Std. Frequencies / -40° C to +105° C	
SG3225CAN	
20 Std. Frequencies / -40° C to +105° C	
SG5032CAN	
20 Std. Frequencies / -40° C to +105° C	
SG5032CCN	
2.5 MHz to 50 MHz, 5 V	
SG7050CAN	
20 Std. Frequencies / -40° C to +105° C	
SG7050CCN	
2.5 MHz to 50 MHz, 5 V	

Crystal Oscillator Standard
Frequencies (CMOS Output, MHz):
4 / 8 / 10 / 12 / 12.288 / 14.7456 / 16 /
20 / 24 / 24.576 / 25 / 26 / 27 / 32 /
33.33 / 33.3333 / 40 / 48 / 50 / 72

TCXO Standard Frequencies (MHz):
25 / 26 / 27 / 27.6 / 30 / 32 / 38.4 /
40 / 48 / 50 / 52

Programmable Oscillators

SG-8200 / 8201CJ	
Output: CMOS	
1.2 MHz to 170 MHz	
±25 ppm, ±50 ppm @ -40° C to +125° C	
±15 ppm @ -40° C to +105° C	
SG-8018 / 8101CG / CE / CB / CA	
Output: CMOS	
0.67 MHz to 170 MHz	
±15 ppm @ -40° C to +85° C	
±20 ppm, ±50 ppm @ -40° C to +105° C	

Real-Time Clock Modules

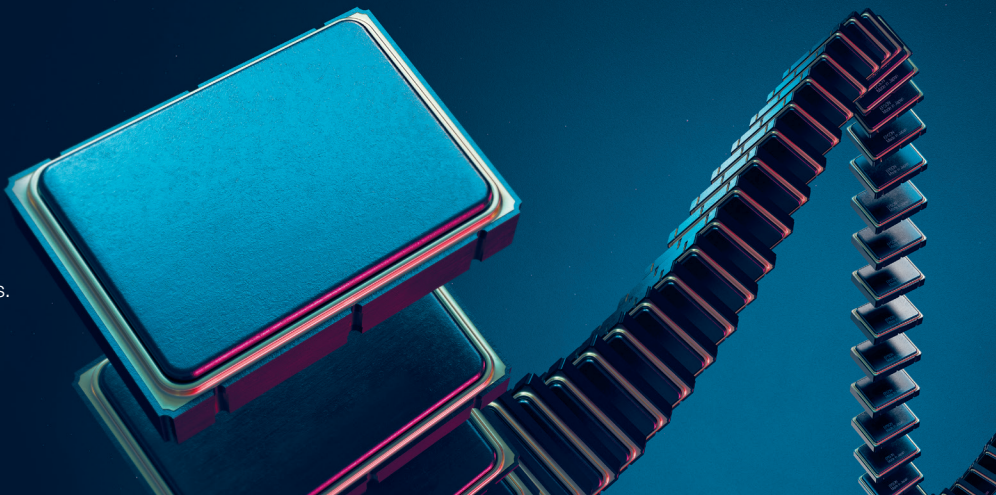
RX8111CE	
I²C Bus, Power Switch, Ultra Low Consumption, Event Detection	
RX8901CE	
I²C Bus, Power Switch, High-Stability DTCXO, Event Detection	
RX8130CE	
I²C Bus, Power Switch, Backup Battery Charge Control	
RX8804CE	
I²C Bus, High-Stability DTCXO Low Current Consumption	
RX8900CE	
I²C Bus, Power Switch, High-Stability DTCXO	
All RTCs are also available with SPI bus interface (RX4***CE). RTC adapter boards are available for evaluation purposes.	

TCXOs

TG1612SLN	
13 MHz to 55.2 MHz / -40° C to +105° C Standby Function, Clipped Sine Wave	
TG2016SLN	
10 MHz to 55.2 MHz / -40° C to +105° C Standby Function, Clipped Sine Wave	
TG2016SMN	
10 MHz to 55 MHz / -40° C to +85° C Clipped Sine Wave	
TG2520SMN	
10 MHz to 55 MHz / -40° C to +85° C Clipped Sine Wave	
TG2520CEN / TG3225CEN	
12 MHz to 52 MHz / -40° C to +85° C CMOS	

Timing Matters

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Network

TCXOs

TG-5006CJ / CG / CE 
1.8 V to 3.3 V / -30° C to +85° C 

TG5032CFN / SFN (4 Pads) 
10 MHz to 40 MHz
CMOS / Clipped Sine Wave for Stratum 3
±0.1 ppm @ -40° C to +85° C

TG5032CGN / SGN (10 Pads) 
10 MHz to 40 MHz
CMOS / Clipped Sine Wave for Stratum 3
±0.1 ppm @ -40° C to +85° C

TG-5510CB (10 Pads) 
TG-5511CB (4 Pads)
10 MHz to 54 MHz
CMOS / Clipped Sine Wave for Stratum 3
±0.28 ppm @ -40° C to +85° C

TG-5510CA (10 Pads) 
TG-5511CA (4 Pads)
10 MHz to 54 MHz
CMOS / Clipped Sine Wave for Stratum 3
±0.28 ppm @ -40° C to +85° C

TG5032CKN / SKN 
TG7050CKN / SKN (10 Pads) 
10 MHz to 54 MHz
CMOS / Clipped Sine Wave for Stratum 3
±0.1 ppm @ -40° C to +105° C

TG5032CMN / SMN 
TG7050CMN / SMN (4 Pads) 
10 MHz to 54 MHz
CMOS / Clipped Sine Wave for Stratum 3
±0.1 ppm @ -40° C to +105° C

Low-Jitter Oscillators

SG2016EGN / VGN / HGN 
SG2520EGN / VGN / HGN 
G Series, ±25 ppm @ -40° C to +105° C
25 MHz to 500 MHz
Phase Jitter: 50 fs max. ($f_0 > 391$ MHz)
Outputs: LV-PECL, LVDS, HCSL

SG2016EHN / VHN / HHN 
SG2520EHN / VHN / HHN 
H Series, ±20 ppm @ -40° C to +105° C
25 MHz to 500 MHz
Phase Jitter: 50 fs max. ($f_0 > 391$ MHz)
Outputs: LV-PECL, LVDS, HCSL

SG3225VEN / EEN 
SG5032VEN / EEN 
SG7050VEN / EEN 
E Series, ±50 ppm @ -40° C to +105° C
25 MHz to 500 MHz
Phase Jitter: 60 fs max. ($f_0 = 156.25$ MHz)
Outputs: LV-PECL, LVDS

SG3225VAN / EAN 
SG5032VAN / EAN 
SG7050VAN / EAN 
±50 ppm @ -40° C to +85° C
73.5 MHz to 700 MHz
Phase Jitter: 0.6 ps max.
Outputs: LV-PECL, LVDS

VCSO

EV7050EAN 
750 MHz to 1,100 MHz and
1,500 MHz to 2,200 MHz / -40° C to +85° C
Low-Phase Jitter: 18 fs typ.
Output: LV-PECL

VCXOs

VG-4231CE 
3 MHz to 50 MHz
±37 ppm @ -40° C to +105° C
APR: ±120 or ±140 ppm
Output: CMOS

VG3225VFN / EFN 
VG5032VFN / EFN 
VG7050VFN / EFN 
25 MHz to 250 MHz
±50 ppm @ -40° C to +105° C
APR: ±10, ±20 or ±50 ppm
Phase Jitter: 70 fs max. ($f_0 = 491.52$ MHz)
Outputs: LV-PECL, LVDS

VG5032EDN / VDN 
VG7050CDN 
85 MHz to 170 MHz
±50 ppm @ -40° C to +105° C
APR: ±50 ppm
Phase Jitter: 0.3 ps max.
Outputs: LV-PECL, LVDS, CMOS

VG7050EAN / ECN 
50 MHz to 800 MHz
±50 ppm @ -40° C to +85° C
APR: ±180 ppm
Output: LV-PECL, Single or
Quad Programmable

VG7050EBN 
600 MHz to 800 MHz
±50 ppm @ -40° C to +85° C
APR: ±50, ±100 ppm
Phase Jitter: 0.2 ps typ.
Output: LV-PECL

For automotive-grade AEC-Q100 / Q200 versions supporting -40° C to +125° C operating temperature, please contact Epson for details and availability.

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