



HKC

Hong Kong X'tals Ltd

Hong Kong Automotive X'tals Ltd

High Precision Quartz Crystal & Clock Oscillator Automotive and Autonomous Driving Electric Vehicles (EV) & EV Charging Infrastructure and Gasoline



Strong Technical Support for Crystal Matching

- Drive Power
- Negative Resistance
- Load Capacitance

Clock Oscillators for Autonomous Driving



Applications	Frequencies (MHz)	Output	Jitter RMS (ps)	Packages
10GbE PHY	156.25	HCSL, LVDS, LVPECL, CML	<0.35	3225XO, 2520XO
NVIDIA NVLink	156.25	HCSL, LVDS, LVPECL, CML	<0.25	3225XO, 2520XO
ECU	133.33	HCSL, LVDS, LVPECL, CML	<1	3225XO, 2520XO
PCIe Gen 1/2/3/4	100	HCSL, LVDS, LVPECL, CML	<0.5	3225XO, 2520XO
ADAS Camera System	27	CMOS		3225XO, 2520XO
Ethernet Switch	25	CMOS		3225XO, 2520XO

High Precision Crystals for Automotive Application Electric Vehicles (EV) & Gasoline -- Timing



Application	Frequencies (kHz)	Packages
Timing & Power Management	32.768	2012SX, 3215SX, 8038PX

High Precision Crystals for Electric Vehicles (EV)



Application	Frequencies (MHz)	Packages
Battery management system BMS	4, 16, 24, 48, 50	49SM (4MHz) ; 2016SX, 2520SX, 3225SX (16/24/48/50MHz)
Charge port door CPD	16	2016SX, 2520SX, 3225SX, 5032SX
On board charger OBC	16, 20	2016SX, 2520SX, 3225SX, 5032SX
DC/DC Converter MCU	8, 16, 24, 32, 40	3225SX, 5032SX
Motor Control	16, 24, 32	2016SX, 2520SX, 3225SX, 5032SX

AEC-Q200 Compliance



ISO/TS 16949:2009
Certificate IATF 0167734
Certificate SGS HK04/01/017.01



ISO 14001:2004
Certificate HK 11/00059



ISO 9001:2008
Certificate HK 10/00316



OHSAS 18001:2007
Certificate CN 12/30611



High Precision Quartz Crystal & Clock Oscillator Automotive and Autonomous Driving Electric Vehicles (EV) & EV Charging Infrastructure and Gasoline



High Precision Crystals for Electrical Vehicles Charging Infrastructure



Application	Frequencies (MHz)	Packages
Charging Port	16, 24, 32	2016SX, 2520SX, 3225SX, 5032SX

High Precision Crystals for Automotive Applications Electric Vehicles (EV) & Gasoline

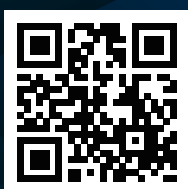


Application	Frequencies (MHz)	Packages
Airbag Controller	5, 40	49SM, 3225SX, 2520SX
RKE	13.08, 13.56, 18.08	3225SX, 2520SX
TPMS	13.08, 13.56, 16, 18.08, 26	3225SX, 2520SX
Body Control Module, PEPS	8, 18.08, 24.305	49SM, 5032SX, 3225SX, 2520SX
Motor Control	12	3225SX, 5032SX
ABS Controller	8	49SM, 5032SX
Rotary E-shifter, ECU	16, 40	3225SX, 2520SX
Bluetooth Modules	16, 26, 32	3225SX, 2520SX
Advanced Driving Assistant Systems (ADAS)	16, 26	3225SX, 2520SX
Dashboard	4, 8	49SM, 5032SX
Car Audio	13.2, 16, 27, 30	3225SX, 2520SX, 2016SX
Car Camera	27	3225SX, 2520SX, 2016SX
Car Light Module	16	3225SX, 2520SX, 2016SX
Car Alarm, Remote Starter	30	3225SX, 2520SX, 2016SX
Display	16, 27	3225SX, 2520SX, 2016SX
Transceiver	16	3225SX, 2520SX, 2016SX
GPS Navigation System	8, 12, 27	49SM, 5032SX, 3225SX, 2520SX



Hong Kong X'tals Ltd
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Distributor/Sales Representative



Unit C, 24/F., Shield Industrial Centre,
84 - 92 Chai Wan Kok Street,
Tsuen Wan, New Territories, Hong Kong
Tel : (852) 3511 2388 Fax : (852) 3511 2420
Email : hkxtals@hongkongcrystal.com
Website: www.hongkongcrystal.com

