W-SERIES XTALS

IoT OPTIMIZED QUARTZ CRYSTALS

Low Plating Load (CL)
Low Equivalent Series Resistance (ESR)

LOWEST CL AND ESR AVAILABLE

Crystals Engineered for the IoT

Abracon's newest series of quartz crystals offer low ESR specifications in combination with low CL options to address energy-saving MCU & portable communication chipset market trends. In the race to decrease power consumption, many on-chip oscillators are starved of output drive and often cannot sustain oscillation using standard quartz crystals with higher ESR & CL specifications. Abracon's W Series of quartz crystals engineered for micro power applications overcome these challenges.

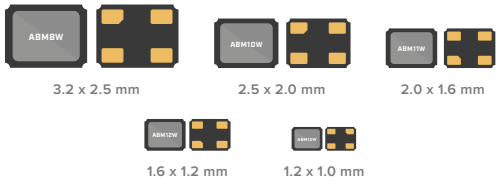
FEATURES

- Optimized for low power MCU and RF chipsets
- Guaranteed low ESR ensures operation in low power applications
- Seam sealed for long-term reliability

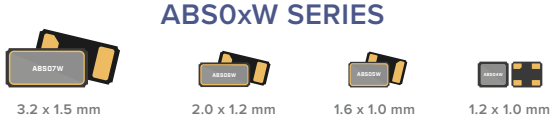
APPLICATIONS

- Wearables
- Internet of Things
- Bluetooth/ Bluetooth Low Energy
- Wireless Modules
- Machine-to-Machine Connectivity
- Ultra Low Power MCU Modules
- WiFi

ABMxW SERIES



ABS0xW SERIES



ABMxW SERIES MHz CRYSTALS

SERIES	PACKAGE SIZE (mm)		FREQUENCY (MHz)	CL, PLATING LOAD (pF)	ESR MAX* (Ω)	WIDEST AVAILABLE OPERATING TEMPERATURE RANGE	TOLERANCE OPTIONS (±ppm)	STABILITY OPTIONS (±ppm)	C0, SHUNT MAX (pF)
	L	W							
ABM13W	1.2	1.0	32 to 80	5 to 8	50-100	-40°C to +125°C	10/15/20	10/15/20	1.0
ABM12W	1.6	1.2	24 to 52	4 to 8	80-150				2.0
ABM11W	2.0	1.6	16 to 50		60-200				
ABM10W	2.5	2.0	16 to 50		40-100				
ABM8W	3.2	2.5	10 to 54		30-200				
*ESR MAX specifications dependent on carrier frequency									

ABS0xW SERIES 32.768kHz CRYSTALS

SERIES	PACKAGE SIZE (mm)		FREQUENCY (kHz)	CL, PLATING LOAD (pF)	ESR MAX (kΩ)	ESR TYP (kΩ)	WIDEST AVAILABLE OPERATING TEMPERATURE RANGE	TOLERANCE OPTIONS (±ppm)	C0, SHUNT MAX (pF)
	L	W							
ABS04W	1.2	1.0	32.768	4 to 12.5	130	75	-40°C to +85°C	20	2.0
ABS05W	1.6	1.0		4	85	65	-40°C to +125°C	20	2.0
ABS06W	2.0	1.2		3	120	100	-40°C to +125°C	20	2.0
ABS07W	3.2	1.5		3	70	60	-40°C to +125°C	10/20	1.3