

ORDER CODE



BS-AO2 series - **100** measurement range - **D1CS** digital output, 1 axis, chip type

Example: BS-AO2-100-D1CS

MEMS Inertial Devices and Systems

- ◇ Based on MEMS Process
- ◇ LCC20 Package
- ◇ ±2 ~ ±200g Full Scale
- ◇ Integrated Signal Conditioning
- ◇ 20,000g Shock Resistance
- ◇ Self-test, SPI Output

MEMS Accelerometers

BS-AO2

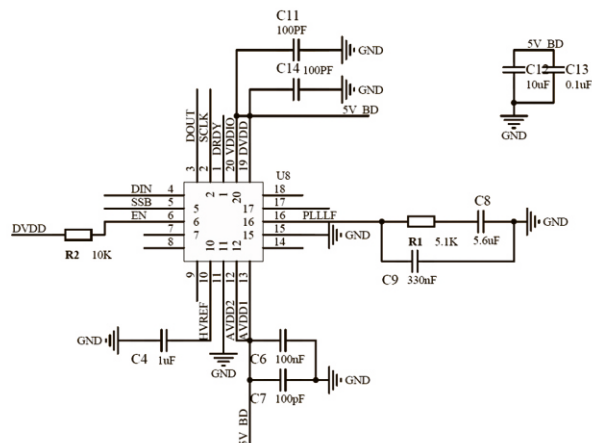
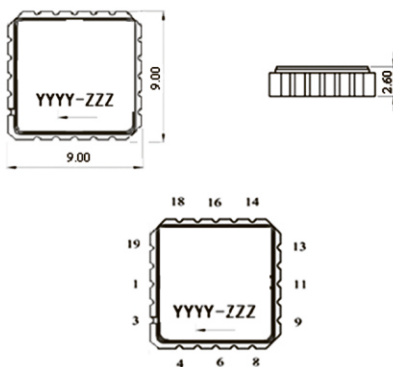
Parameter	Unit	-2-D1CS	-10-D1CS	-15-D1CS	-30-D1CS	-50-D1CS	-100-D1CS	-150-D1CS	-200-D1CS
Full Scale	g	±2	±10	±15	±30	±50	±100	±150	±200
Bias	mg	±20	±50	±50	±50	±50	±100	±100	±100
Bias Stability	mg	≤0.05	≤0.15	≤0.2	≤0.3	≤0.4	≤0.8	≤1	≤1.5
Bias Repeatability	mg	≤0.05	≤0.15	≤0.2	≤0.3	≤0.4	≤0.8	≤1	≤1.5
Bias Temp. Coefficient	mg/°C	≤0.1	≤0.5	≤0.75	≤1.5	≤2	≤5	≤7.5	≤10
Scale Factor Stability	ppm	≤200	≤200	≤200	≤300	≤300	≤500	≤500	≤500
Scale Factor Repeatability	ppm	≤200	≤200	≤200	≤300	≤300	≤500	≤500	≤500
Scale Factor Temp.Coefficient	ppm/°C	≤100	≤100	≤100	≤150	≤150	≤200	≤200	≤200
Resolution	mg	0.05	0.25	0.5	1.0	2.5	5.0	7.5	10
Bandwidth	Hz	147	147	147	147	147	147	147	147
Input axis Mis-alignment	mrad	<10	<10	<10	<10	<10	<10	<10	<10
	%	<1	<1	<1	<1	<1	<1	<1	<1
Non Linearity	%FS(max)	±0.1	±0.3	±0.3	±0.3	±0.3	±0.3	±0.5	±0.5
Resonant Frequency	KHz	1.3	2.7	3.8	4.5	5.8	8.1	10.1	11.4
Start Up Time	s	1	1	1	1	1	1	1	1
Power Consumption	mW	100							
Size	mm ³	9.0×9.0×2.6							
Package		Ceramic LCC20							
Interface		SPI							
Operating Temp.	°C	-40°C~+85°C(default) ; -55°C~+125°C (as request)							
Storing Temp.	°C	-55~125							
Shock Resistance	g	10000							

All values are typical at +25°C, +5Vdc unless otherwise statement

◇ Applications

- Inertial Navigation: Inertial Guidance, Integrated Navigation, Platform Stabilization
- Short-term Navigation: Flight Control, Ballistic Correction, Telemetry
- Posture Control: UAV(Unmanned Aerial Vehicle), Antenna Orientation, North Finder
- Automotive: ESP, Balance Measurement

◇ Structure (Unit: mm)



Top view

Side view