



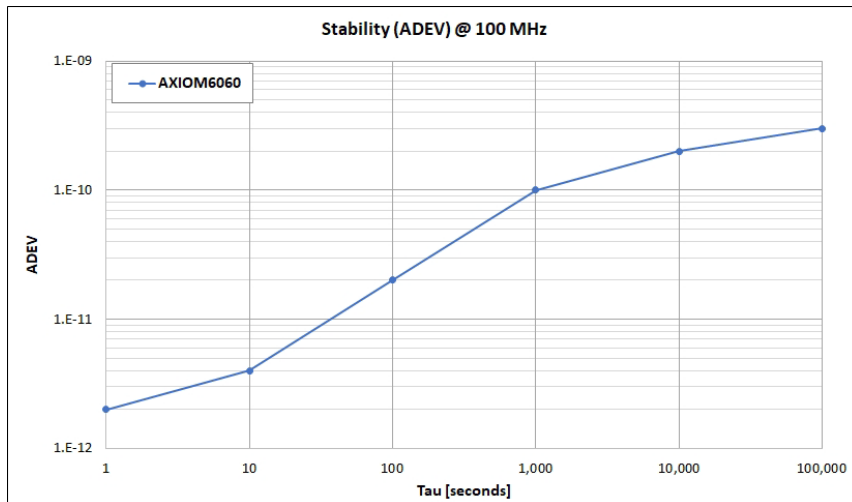
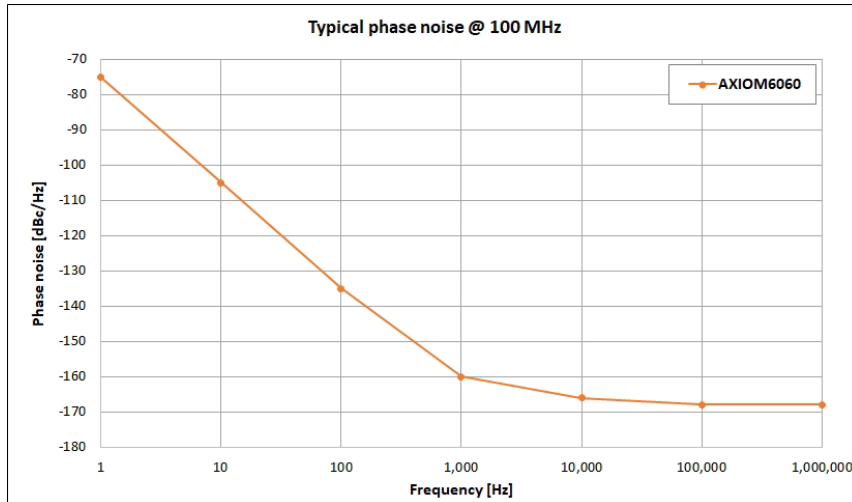


Model					
	AXIS45S	AXIS75S	AXIOM6060	MQF4021S	
Product type	VCXO	VCXO	OCXO	Crystal Filter	
Category	Classical Space (ECSS Class 1)				
Features	Low phase noise Wide pulling range Customizable VCXO characteristic		ESA EPPL Ultra-Low Noise	High filter slope and out-of-band attenuation	
Radiation hardness	100 krad (TID) – SEE > 90 MeV·cm²/mg – SEL immune				
Frequency range	10 ~ 100 MHz	100 ~ 200 MHz	80 ~ 125 MHz	10 ~ 100 MHz	
Output	Sine wave			50 Ohm	
Stability	±10 ppm	±10 ppm	±50 ppb	±20 ppm	
Temperature range	-30°C to +70°C			-40°C to +85°C	
Supply voltage	5 V	5 ~ 12 V	12 V	-	
Manufacturing	MIL-PRF-55310 Product Level “S” – ECSS-Q-ST-70-08C/38C				
Size	21 x 13 mm (CO 02)	25 x 25 mm (CO 43)	60 x 60 x 30 mm SMA / Micro-D	60 x 60 x 30 mm SMA / FT	40 x 21 mm SMD Package



Phase noise Performance



Design, Manufacturing and Quality

Space COTS “New Space Category”	Class 1 “Classical Space Category”
Specially selected commercial components & materials (COTS) / Suitable semiconductor technology for improved radiation hardness	Component selection based on ECSS-Q-ST-60C Class 1
Quartz crystal with High Q material (Low inclusion & etch channel density)	Material selection based on ECSS-Q-ST-70C / ECSS-Q-70-71
Manufacturing IAW ECSS-Q-ST-70-08C / ECSS-Q-ST-70-38C	
-	ESA certified personnel in Clean-Room environment (ISO Class 3)
Pre-cap inspection (Optional)	Pre-cap inspection of Crystal & Oscillator
-	Destructive Physical Analysis DPA (Optional)
Manufacturing IAW MIL-PRF-55310 Product Level “S” including	
Screening, Group-B	Screening, Group A-, B- and C-inspection
Full traceability of all critical components (Quartz, Semiconductors & PCB)	Complete traceability of all components, materials and manufacturing steps

Heritage & More Information

AXTAL designs and manufactures Space products since 2011

AXTAL has a long heritage from LEO to extraplanetary missions (Moon & Mars)

AXTAL can tailor its Space products to the specific mission requirements

→ Please visit our website and see our Space presentation

