

STALO FREQUENCY SYNTHESIZER



STALO is used as a precision frequency generation subsystem of radar systems and communications systems. It is used in fixed, airborne and mobile SATCOM, wireless communications, VSAT, radar and instrumentation solutions. STALO is a signal source designed to deliver high performance in a compact package.

The device synthesizes the programmed system frequency signal based on the external reference frequency signal (10 MHz). Output frequency can be set between 5050 - 5258 MHz in 100 kHz resolution. Frequency is set by serial bus or parallel interface.

This ruggedized model has IP65 class and can withstand condensation environments. Unit is electromechanically stable according to MIL-STD-188-164A. The EMC class is consistent with EN61000-6-4 standard.

FEATURES

- Compact size
- High immunity to phase hits
- Very low phase noise
- Covers C and X bands
- Low spurious
- Ruggedized for environmental conditions and military applications (optional)
- The state-of-the-art synthesizer gives sufficient margin to the designers to meet stringent system requirements. 100 % screening guarantees performance over the specified temperature range.

Please contact DA-Group for custom configurations.

“ DA-Group has designed, manufactured and delivered similar low noise microwave synthesizer devices for **Vaisala Plc.** Vaisala is a global leader in environmental and industrial measurement.

– The cooperation with DA-Group has worked well for our operations and product portfolio. The innovative synthesizers meet the high-quality and durability demands of Vaisala’s customer solutions, says **Mr. Juha Salmivaara,** R&D manager of Weather Radar Solutions. ”

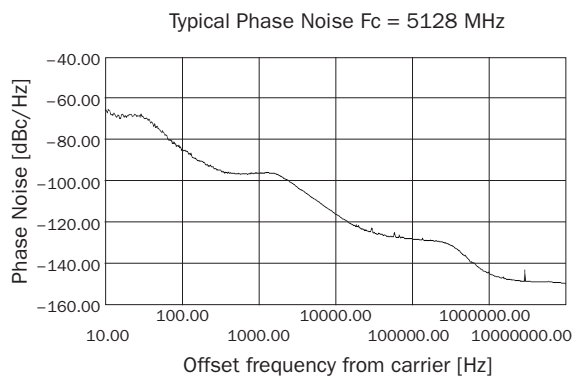
VAISALA



PERFORMANCE

RF OUT (SMA F)	min	max
Frequency, MHz	5050	5258
Level, dBm	17	21
Phase noise	< -64 dBc @ 10 Hz < -81 dBc @ 100 Hz < -95 dBc @ 1 kHz < -109 dBc @ 10 kHz < -123 dBc @ 100 kHz < -143 dBc @ 1 MHz	
Spurious	< -60 dBc	

PHASE NOISE SAMPLE



REFERENCE SIGNAL

10MHz IN (SMA F)	min	max
Frequency, MHz	10	10
Level, dBm	0	6
Phase noise	< -120 dBc @ 10 Hz < -150 dBc @ 100 Hz	

ELECTRICAL INTERFACES

STALO has several electrical interfaces and all of them needs to be connected for STALO to function properly.

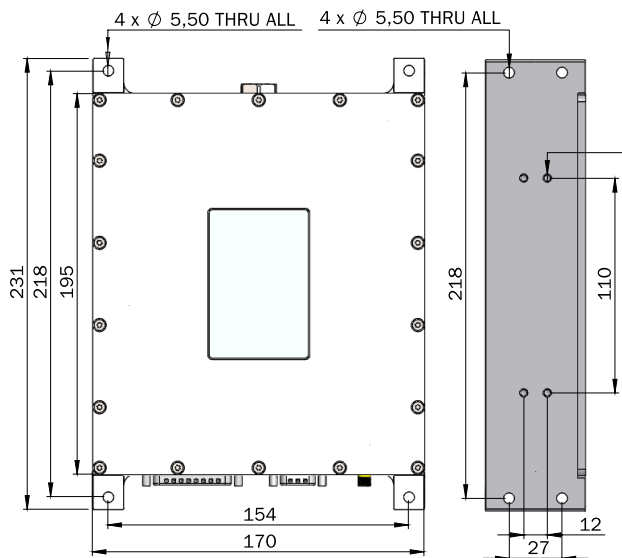
Absolute maximum ratings

VIN	-0,7..+28 V
RS-422	-13..16 V
10 MHz IN	+10 dBm
Storage temperature	-40 .. +65 °C

Recommended operation conditions

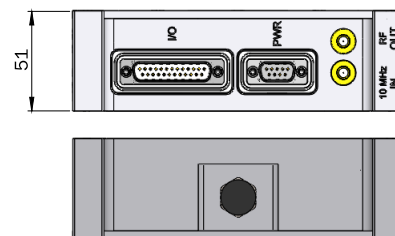
VIN	7,5–24 V
Power consumption	10 W
Digital IO	5–24 V
10 MHz IN	0..+6 dBm
Operating temperature	-10 .. +55 °C
Full performance temperature	+15..+35 °C

MECHANICAL DIMENSIONS



Dimensions (mm)	170 (W) x 231 (L) x 51 (H)
Weight	2,4 kg
Material	EN AW-6082-T6/651
Finish	Chromate conversion coating

4 x \varnothing 3,30 ∇ 7,10
 M4x0,7 - 6H ∇ 5
 \checkmark \varnothing 4,20 X 90°, Near Side



Data is subject to change.

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