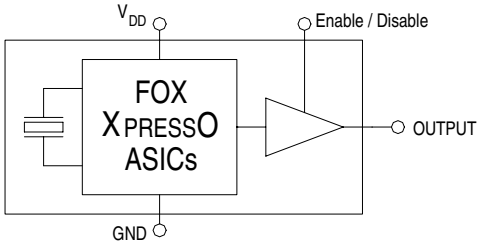
FOX XPRESSO for ETHERNET Model: FXO-HC735RGB-125

HCMOS 7 x 5mm 3.3V 50ppm XO Freq: 125MHz

Features

- Low Jitter
- Low Cost
- Tri-State Enable / Disable Feature
- Industry Standard Package
- Gold over Nickel Termination Finish



Need a Sample

Pb

RoHS Compliant

Electrical Characteristics

Parameters	Symbol	Condition	Maximum Value (unless otherwise noted)
Frequency	F_O		125 MHz
Frequency Stability 1			50 ppm
Temperature Range	T_O T_{STG}	Standard operating Storage	*-40℃ to +85℃* -55°C to +125°C
Supply Voltage	V_{DD}	Standard	3.3V ± 5%
Input Current	I_{DD}	Standard Load	47 mA
Output Load	HCMOS	Standard Operational	15 pF 30 pF
Start-Up Time	T_S		10 mS
Output Enable / Disable Time			100 nS
Moisture Sensitivity Level	MSL		1
Termination Finish			Au

Note 1 – Stability is inclusive of 25°C tolerance, operating temperature range, input voltage change, load change, aging, shock and vibration.

Output Wave Characteristics

Parameters	Symbol	Condition	Maximum Value
Output LOW Voltage	V_{OL}	Standard Load	10% V_{DD}
Output HIGH Voltage	V_{OH}	Standard Load	90% V_{DD} MIN
Output Symmetry		@ 50% V_{DD} Level	45% ~ 55%
Output Enable $_{(PIN\ \#\ 1)}$ Voltage	V_{IH}		≥70% V_{DD}
Output Disable $_{(PIN\ \#\ 1)}$ Voltage	V_{IL}		≤30% V_{DD}
Cycle Rise Time	T_R	10% ~ 90% V_{DD}	3 nS
Cycle Fall Time	T_F	90% ~ 10% V_{DD}	3 nS

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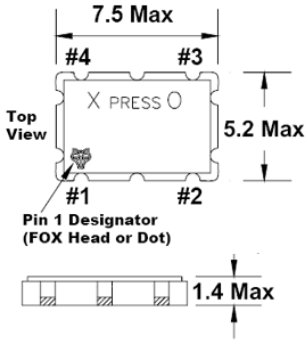
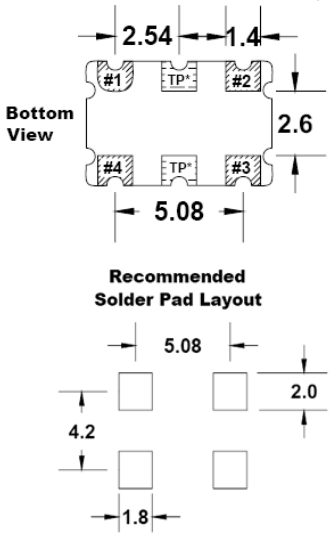
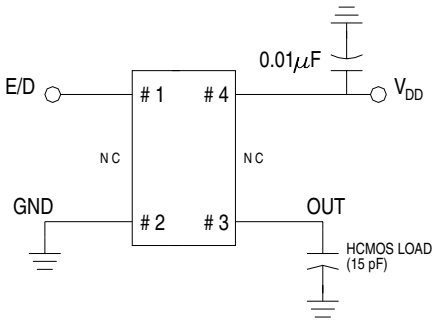
Dimensional Drawing & Pad Layout



Note: XpressO HCMOS XO's are designed to fit on industry standard, 4 pad layouts.

Pin Connections
#1) E/D #3 Output
#2 GND #4 VDD
*TP are test points and are NC





Actual marking is depicted.

Drawing is for reference to critical specifications defined by size measurements.
Certain non-critical visual attributes, such as side castellations, reference pin shape, etc. may vary

Phase Jitter & Time Interval Error (TIE) (Typical Measurements)

Frequency	Phase Jitter (12kHz to 20MHz)	T I E (Sigma of Jitter Distribution)	Units
125 MHz	0.75	2.7	pS RMS

Phase Jitter is integrated from HP3048 Phase Noise Measurement System; measured directly into 50 ohm input; V_{DD} = 3.3V.
TIE was measured on LeCroy LC684 Digital Storage Scope, directly into 50 ohm input, with Amherst M1 software; V_{DD} = 3.3V.
*Per **MJSQ** spec (Methodologies for Jitter and Signal Quality specifications)*

Random & Deterministic Jitter Composition (Typical Measurements)

Frequency	Random (Rj) (pS RMS)	Deterministic (Dj) (pS P-P)	Total Jitter (Tj) (14 x Rj) + Dj
125 MHz	1.20	8.0	25.2 pS

Rj and Dj, measured on LeCroy LC684 Digital Storage Scope, directly into 50 ohm input, with Amherst M1 software.
*Per **MJSQ** spec (Methodologies for Jitter and Signal Quality specifications)*

Pin Functional Description

Pin #	Name	Type	Function
1	E / D [1]	Logic	Enable / Disable Control of Output (0 = Disabled)
2	GND	Ground	Electrical Ground for V_{DD}
3	Output	Output	HCMOS Oscillator Output
4	V_{DD} [2]	Power	Power Supply Source Voltage
Test Points	*N. C.*	Hi Z	*No Connection (Factory Use ONLY)*

NOTES:

[1] Includes pull-up resistor to V_{DD} to provide output when the pin (1) is No Connect.

[2] Installation should include a 0.01µF bypass capacitor placed between V_{DD} (Pin 4) and GND (Pin 2) to minimize power supply line noise.