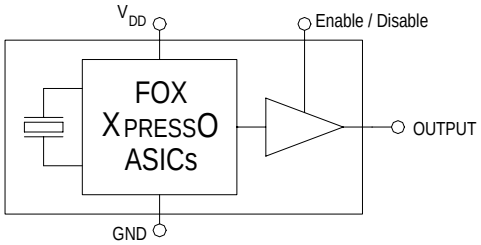
FOX XPRESSO for ETHERNET Model: FXO-PC735RGB-312

LVPECL 7 x 5mm 3.3V 50ppm XO Freq: 312.5MHz

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 Range	F_O		312.5 MHz
Frequency Stability 1			50 ppm
Temperature Range	T_O T_{STG}	Standard operating Storage	*-40°C to +85°C* -55°C to +125°C
Supply Voltage	V_{DD}	Standard	3.3V ± 5%
Input Current	I_{DD}	Standard Load	120 mA
Output Load	Differential	Standard	50 ohms into V_{DD} -2.0V_{DC}
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	1.35V ~ 1.65V
Output HIGH Voltage	V_{OH}	Standard Load	2.055V ~ 2.405V
Output Symmetry		@ 50% Vp-p 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	20% ~ 80% Vp-p	400 pS
Cycle Fall Time	T_F	80% ~ 20% Vp-p	400 pS

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FOXElectronics 5570 Enterprise Parkway Fort Myers, Florida 33905 USA +1.239.693.0099 FAX +1.239.693.1554 **FOXONLINE**
EMEA Tel/Fax: +44 .1767.312632 | **Asia** Hong Kong Tel: +852.2854.4285 Fax +852.2854.4282 | **Japan** Tel: +81.3.3374.2079 Fax: +81.3.3374.5221

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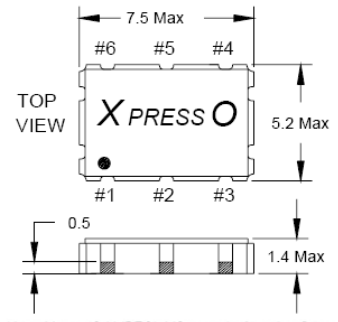
Dimensional Drawing & Pad Layout

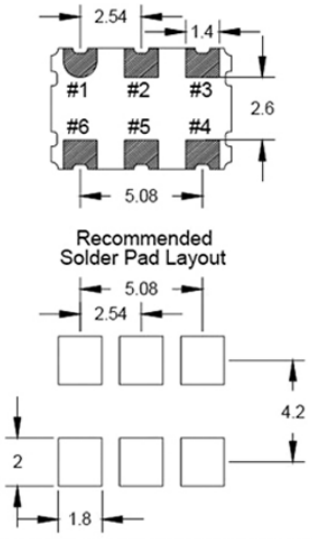


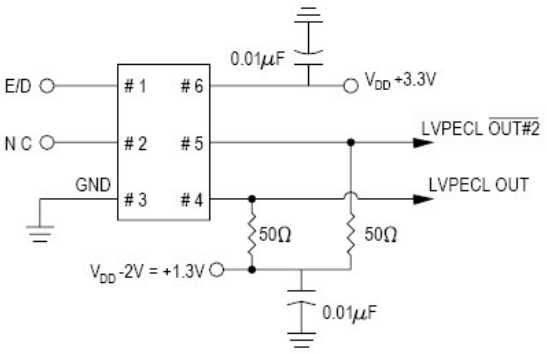
Note: XPRESSO LVPECL XOs are designed to fit on Industry standard, 6 pad, layouts.

Pin Connections

#1) E/D	#4) Output
#2) *NC*	#5) Output 2
#3) GND	#6) V_{DD}

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
312.5 MHz	0.86	3.5	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
312.5 MHz	1.29	9.3	27.7 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	NC [2]		*No Connection – Leave Open*
3	GND	Ground	Electrical Ground for V_{DD}
4	Output	Output	LVPECL Oscillator Output
5	Output 2	Output	Complementary LVPECL Output
6	V_{DD} [3]	Power	Power Supply Source Voltage

NOTES:
1 Includes pull-up resistor to V_{DD} to provide output when the pin (1) is No Connect. (Also see note 2)
2 An optional pin # 2 Enable / disable is available.
3 Installation should include a 0.01µF bypass capacitor placed between V_{DD} (Pin 6) and GND (Pin 3) to minimize power supply line noise.

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