

Version 2.13 - November 2022

Abstract

The syn1588® PCIe NIC Revision 2.3 is available in several configurations. They differ in the type of the SFP transceiver modules that comes with the card, the oscillator and cable connector options. This application note describes the available options in detail.

Introduction

The syn1588® PCIe NIC Revision 2.3 is delivered with a large (standard height) PCI bracket; a short (reduced height) PCI bracket is included as well. The following pictures show all available options briefly as well as the related ordering codes.

Oscillator Options

To enable our customers to trade off costs versus accuracy Oregano Systems offers it's syn1588® PCIe NIC Revision 2.3 cards with two different oscillator options.

- standard TCXO (1.5 ppm, default option)
- high-stability OCXO (better than 0.5 ppm)

The default configuration of the syn1588® PCIe NIC Revision 2.3 card includes the cost-effective option “standard TCXO”.

SFP Options

By default, the syn1588® PCIe NIC is delivered with a SR (short range) fiber SFP transceiver module. Optionally, the card can be ordered with a LR (long range) fiber or a 100/1000 Mbit copper SFP transceiver module at no extra costs.

Cable Options

Oregano Systems offers its syn1588® PCIe NIC Revision 2.3 cards with three different cable options.

- **Plug (surcharge option)**

The Plug option contains a set of two coaxial cables (length approx. 300 mm) that can be connected to the two MMCX connectors in the top side of the syn1588® PCIe NIC (x5 and X6). On their respective opposite ends the cables are equipped with SMA plugs enabling directly connecting a SMA connector to your system (see figure 1).

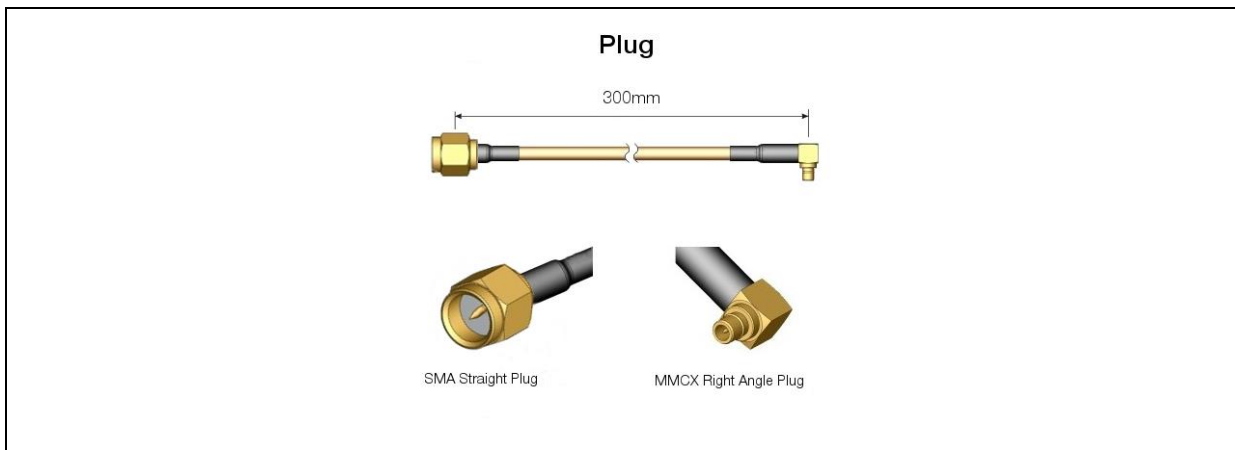


Figure 1. SMA cable for Plug option

The PLUG option is made up of two such cables.

- **ExtClk (surcharge option)**

This option is used to supply an external clock input to the PTP hardware clock of the syn1588[®] PCIe NIC. An MMCX connector is mounted on one side of the cable (length approx. 100 mm) while an SMA bulkhead jack is attached to the other end (see figure 2).

Caution: Please note that the ExtClk option requires a large (standard height) PCI bracket for the third SMA connector (external clock input).



Figure 2. SMA cable for ExtClk option

- **MMCX (surcharge option)**

Oregano Systems supplies a cable (length approx. 300 mm) that can be connected on one side to X5, X6 and X7 on the syn1588® Dual NIC (MMCX connector). This cable offers a right angle MMCX plug on the other side enabling directly connecting to X5, X6 and X7 on another syn1588® Dual NIC (MMCX connector) in your system.

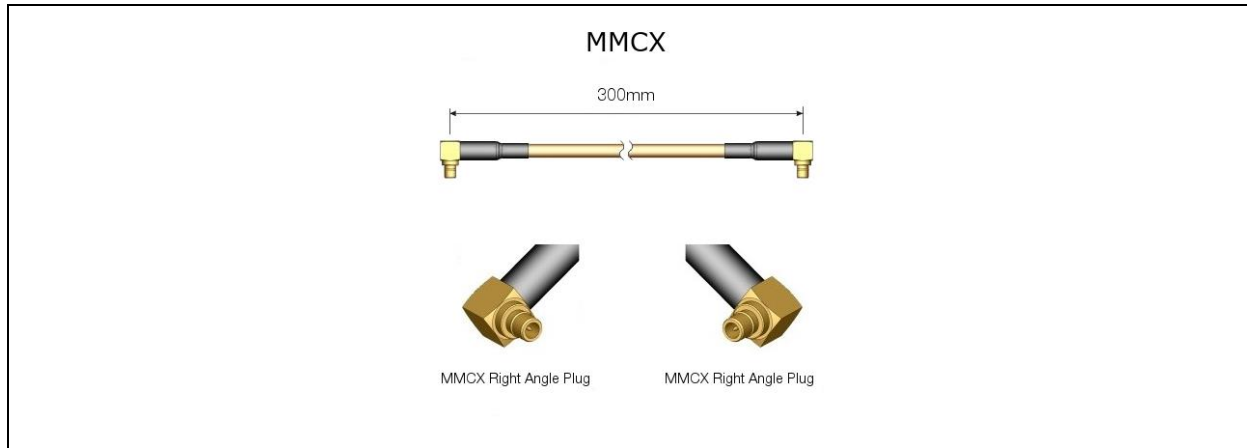


Figure 3. MMCX cable for MMCX option

The MMCX option is made up of two such cables.

syn1588[®] PCIe NIC Revision 2.3

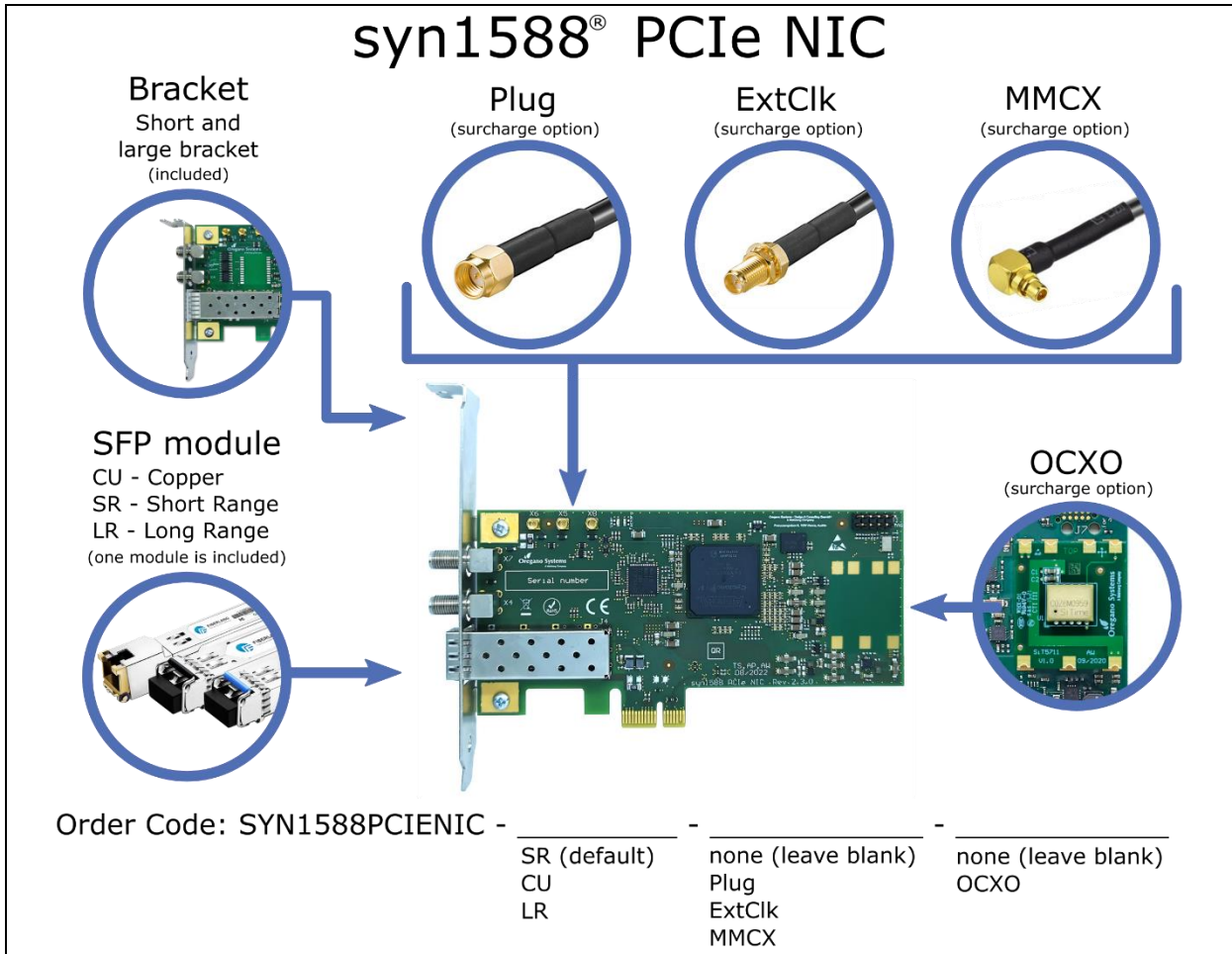


Figure 4. syn1588[®] PCIe NIC Revision 2.3



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