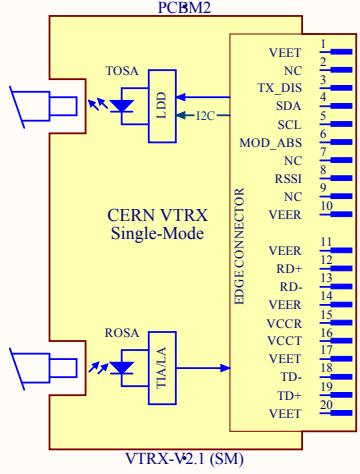
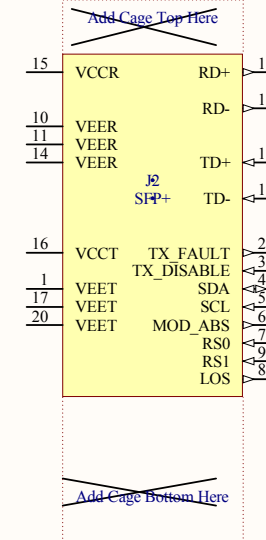
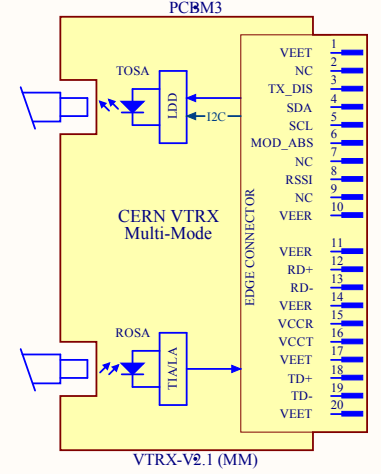
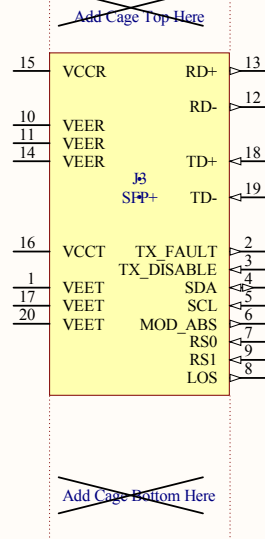


Cern VTTx, VTRx

The VTRx, VTTx use no cage. They have mounting holes.

In Altium the holes are included in the symbols near the SFP+ symbols.

then on the PCB, one must set the same (x, y) value and orientation for the SFP+ footprint and for the other symbol.



Polarity of the high-speed (serial) data lines

VTRx has two variants: SM and MM. Interestingly, the polarity of the two variants is different and they are also both different from the standard SFP+ polarity. See table:

Pin	SFP+	SM VTRx	MM VTRx
12	RD-	RD+	RD+
13	RD+	RD-	RD-
18	TD+	TD-	TD+
19	TD-	TD+	TD-

Power and voltages

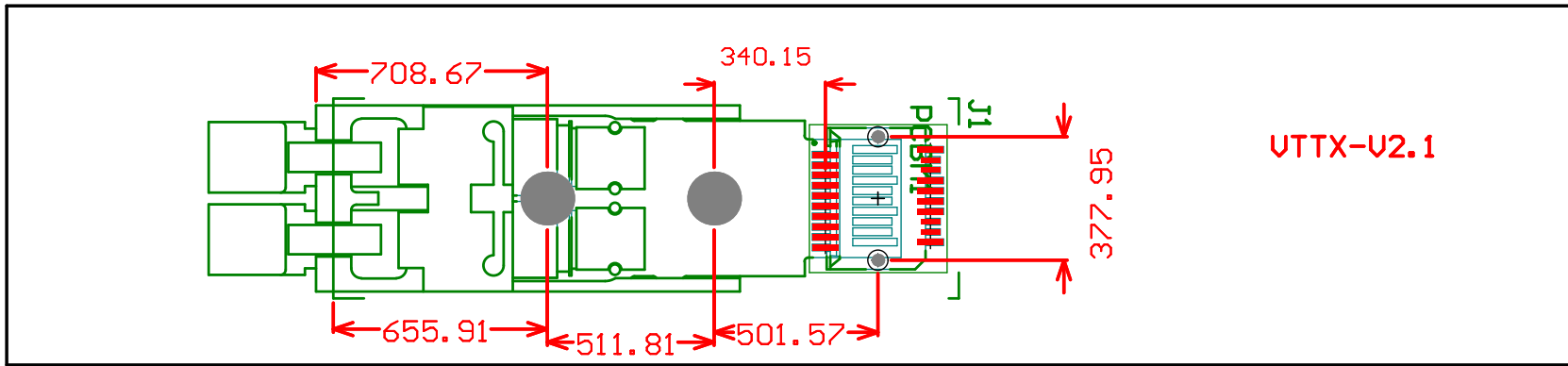
Standard SFP+ is powered at 3.3V.
All VTTx, VTRx types are powered at 2.5V but pull-up for I2C lines needs to be 1.5V !

Title		
Size A4	Number	Revision
Date: 8/20/2014	Sheet of	
File: D:\AltiumDesigns\...\VTRx_VTTx.SchDoc Drawn By: Tullio Grassi		

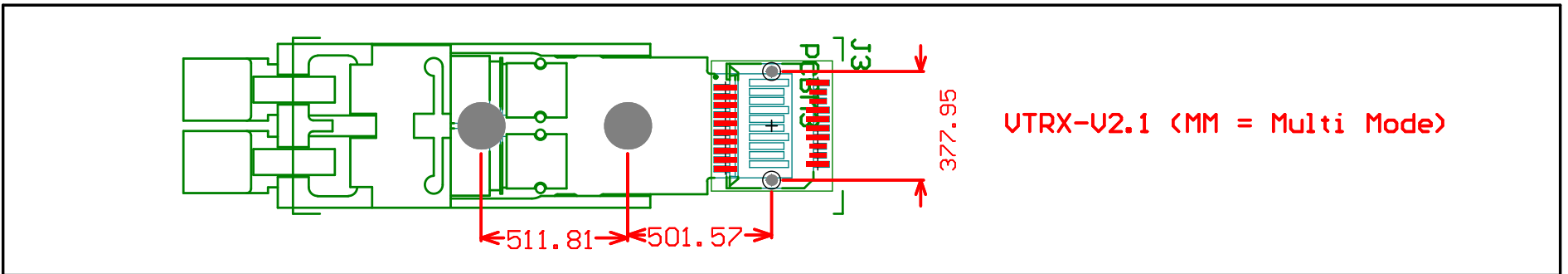
Dimensions in mils

Tullio Grassi , 17 Apr 2014

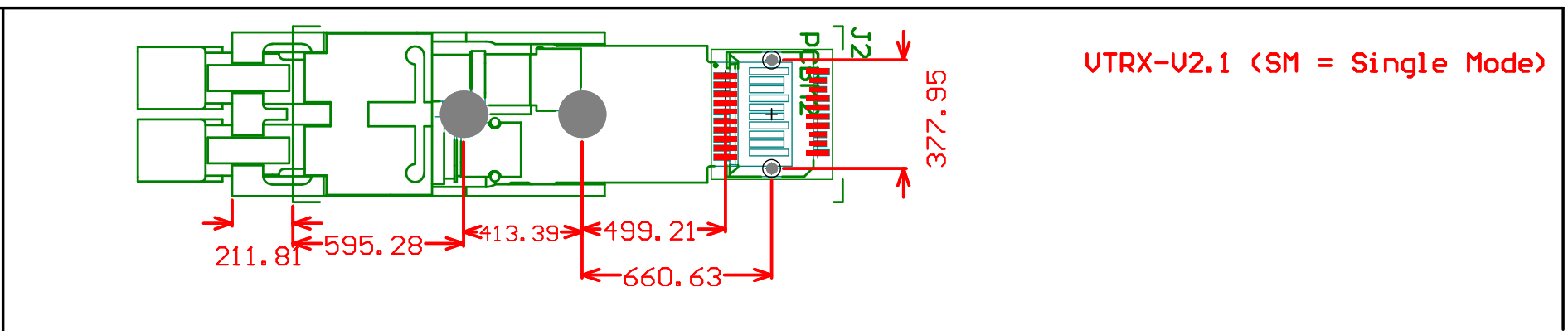
Dimensions from center of the pads, automatically selected by the Altium CAD tool.



UTTX-U2.1



UTRX-U2.1 (MM = Multi Mode)



UTRX-U2.1 (SM = Single Mode)

For the two mounting holes: Pad size = 165.354mil ; Hole size = 118.11mil

Comment	Description	Designator	Footprint	LibRef	Quantity
SFP+	20 Position SFP+ Connector (Small Form-factor Pluggable)	J1, J2, J3	TYCO_1888247-1	TYCO_1888247-1	3
VTTX-V2.1	Versatile Twin Transmitter Module	PCBM1	PCBM_CERN_VTTX V2.1	PCBM_CERN_VTTX V2.1	1
VTRX-V2.1 (SM)	CERN VTRX V2.1 Single-Mode (SM)	PCBM2	PCBM_CERN_VTRX V2.1 (SM)	PCBM_CERN_VTRX V2.1 (SM)	1
VTRX-V2.1 (MM)	CERN VTRX V2.1 Multi-Mode (MM)	PCBM3	PCBM_CERN_VTRX V2.1 (MM)	PCBM_CERN_VTRX V2.1 (MM)	1