

Technical Data Sheet

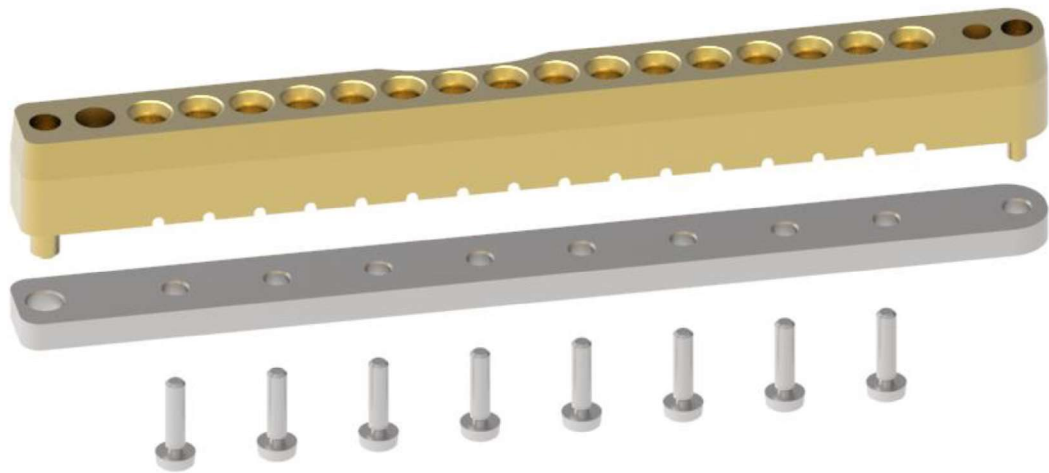
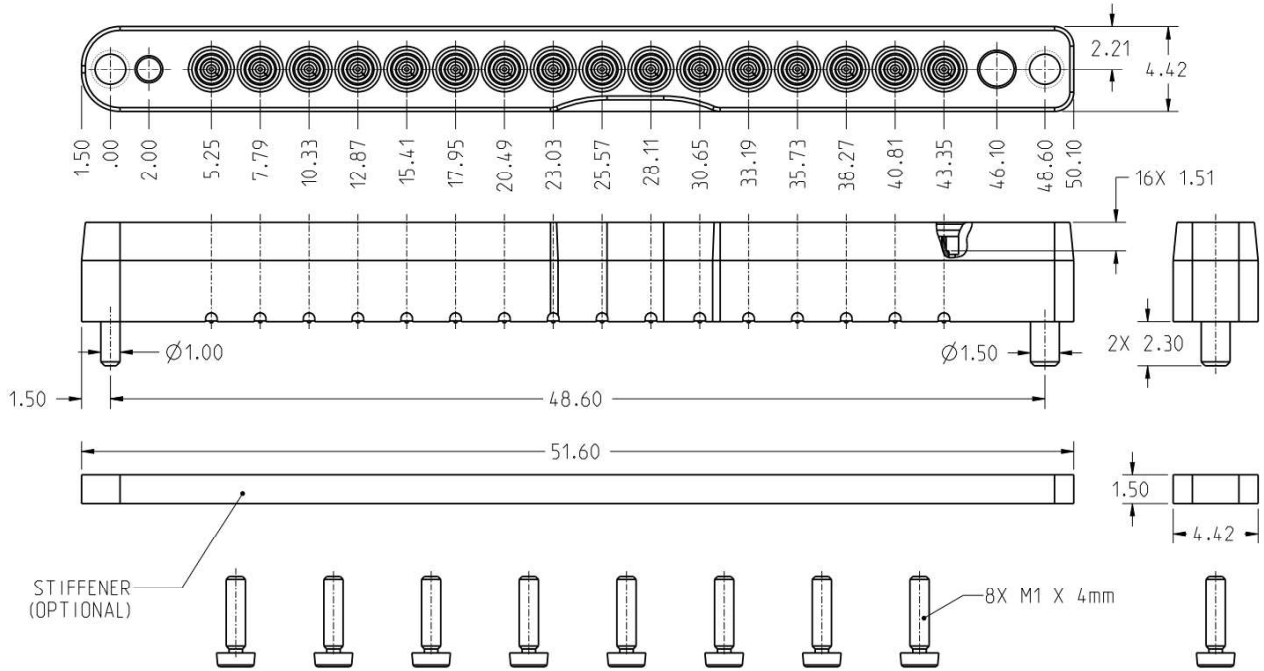
Rosenberger

SMPX

Vertical Male PCB Connector

W2S101-40ML3-XX

W2S101-40ML3-16



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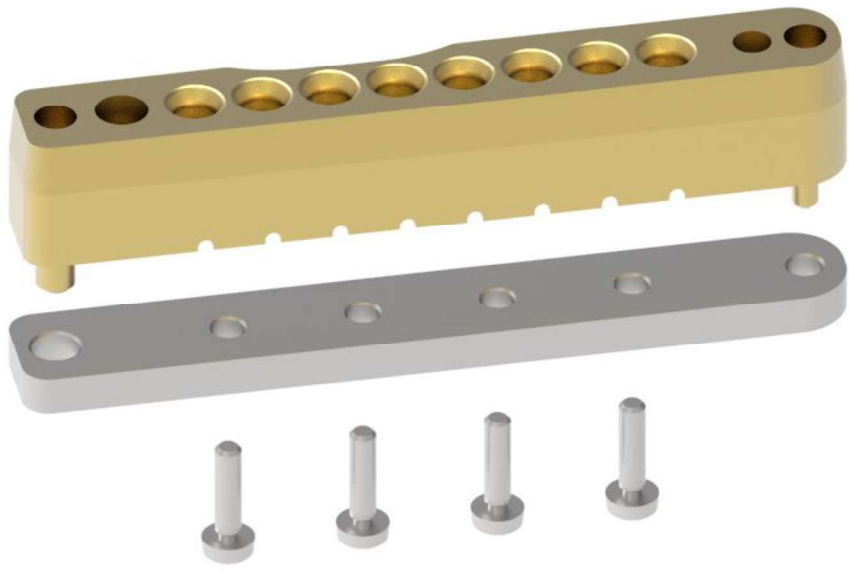
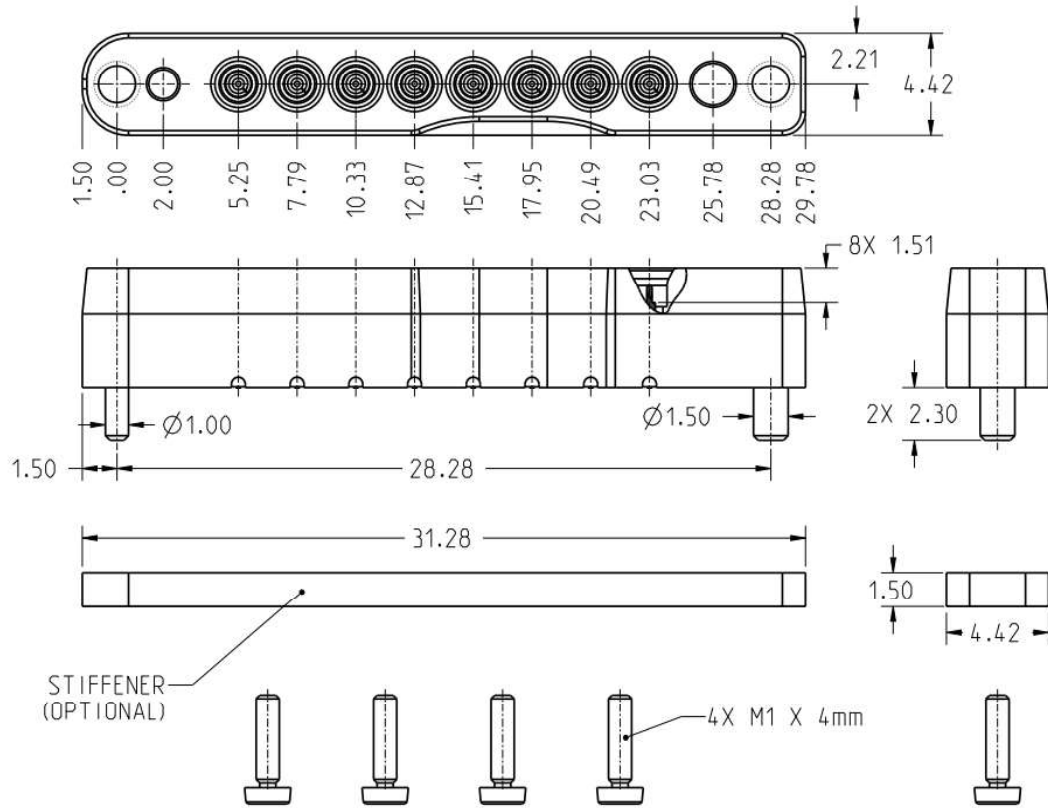
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 RNA_Datasheet2_Rev A
 08/01/2022

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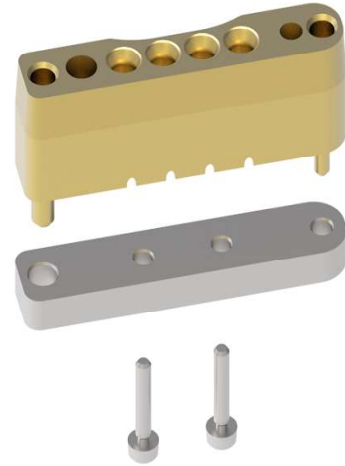
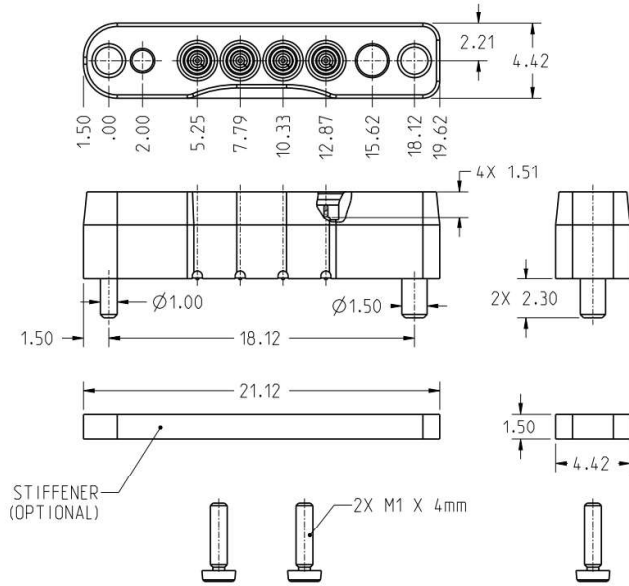
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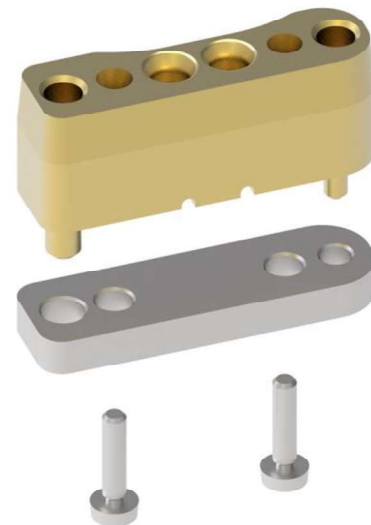
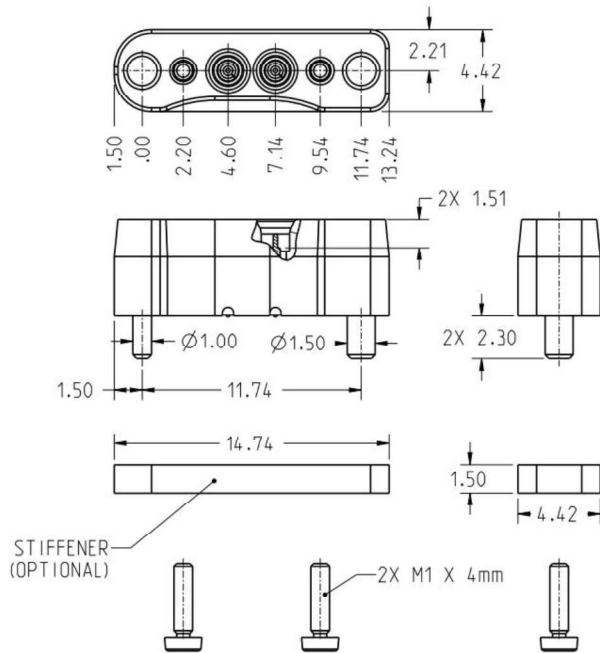
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All dimensions are in mm

Unless otherwise specified tolerances are as follows: .XX±.025; XXX±.012

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Technical Data Sheet

Rosenberger

SMPX

Vertical Male PCB Connector

W2S101-40ML3-XX

Interface

According to Rosenberger SMPX Interface standards

Material and plating

Connector parts

Body

Material

Brass per ASTM B16

Plating

Hard Gold, 6µin min over
Electroless Nickel, 80µin min
Hard Gold, 31µin min over
Electroless Nickel, 80µin min

Pin

CuBe per ASTM B196

Front Insulator

ULTEM® 1000 or equivalent
per ASTM D5205, PEI0113

Back Insulator

PEEK 1000 or equivalent
Per ASTM 6262

Stiffener (Optional)

SST per ASTM A582

Passivated

M1 X 4mm Screw*

SST per ASTM A582

Passivated

*Note: The screw sizes can be modified to accommodate variations in board thickness.
The screw sizes listed above allow for board thickness of X.XX ± X.XX

Electrical data (@ STP unless otherwise specified)

Impedance

50 Ω

Frequency

DC to 110 GHz

Return Loss*

≤ 15 dB at 70 GHz

Insertion loss

≤ 0.1 dB x $\sqrt{f(\text{GHz})}$, DC to 70 GHz

Insulation resistance

≥ 5 GΩ

Center contact resistance

≤ xx mΩ

Outer contact resistance

≤ xx mΩ

Working Voltage

500 V rms

RF High Potential

xxx V rms @ 5 MHz

RF leakage

≥ xx dB

Mechanical data

Mating cycles (single channel)

≤ 10000

Engagement force (max)

0.9 lbf [4.0 N]

Disengagement force (min)

1.32 lbf [5.9 N]

PCB Installation Cycles

100 (Typical)

Environmental data

Temperature range

-40°C to +120°C

Thermal shock

MIL-STD-202 – 107, Condition B

Corrosion

MIL-STD-202 – 101, Condition B

Vibration

MIL-STD-202 – 204, Condition B

Shock

MIL-STD-202 – 213, Condition A

Moisture resistance

MIL-STD-202 – 106, except Step 7B

2002/95/EC (RoHS)

compliant

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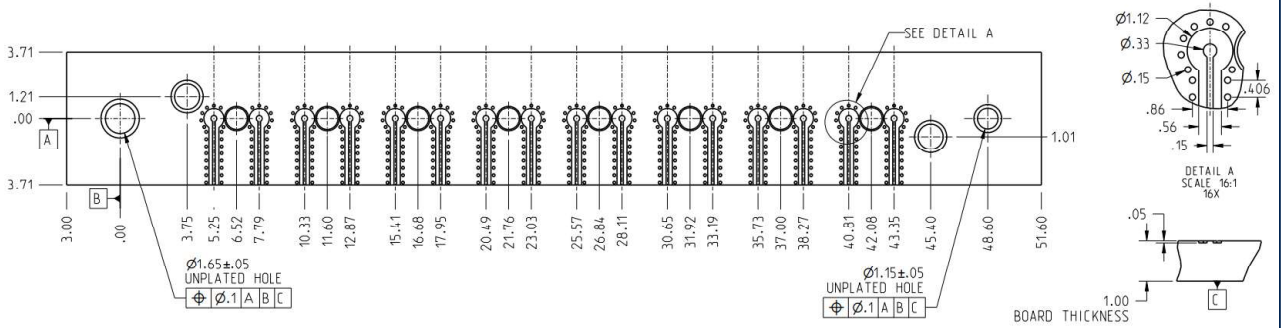
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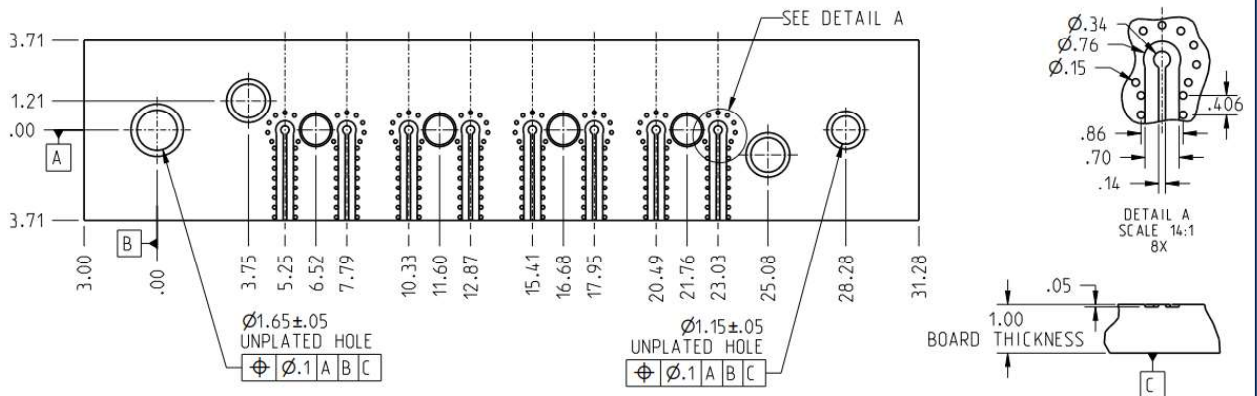
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PCB Footprint

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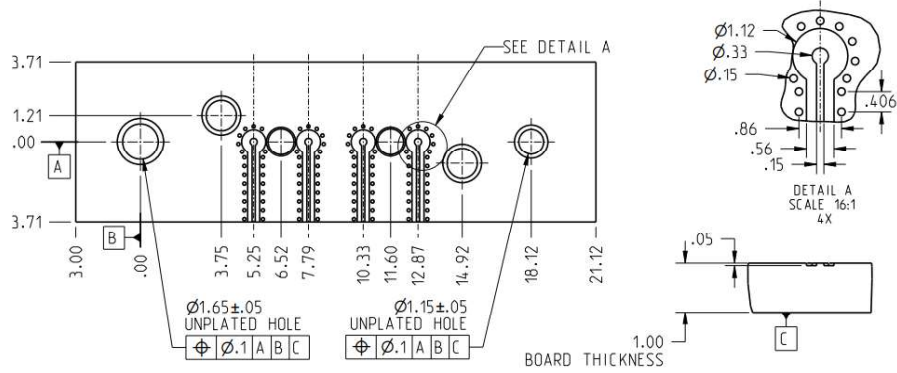
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SMPX

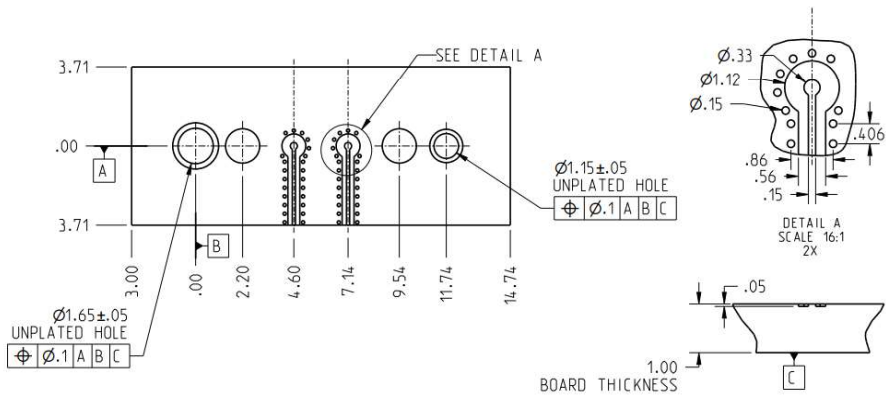
Vertical Male PCB Connector

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W2S101-40ML3-02



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Draft	Date	Approved	Date	Rev.	Engineering change number	Name	Date
L. Weber	9/14/2023	E. Soubh	10/11/2023	201	Updated to SMPX	D.Hoeschen	10/28/2024
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