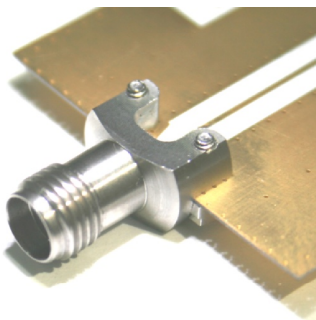


Wave Launch connectors are specially designed for well-used high frequency substrates to minimize Electromagnetic effects including impedance discontinuities from coaxial to Microstrip/CPW structure. We solve your performance and cost problems.



■ Features

- Now available in : SMA (27 GHz), 2.92 mm (40 GHz), 2.40 mm (50 GHz)
- Optimized *well-used high frequency substrates (RO4003C, RO4350B, Du5880)*
- according to substrate thickness (5, 8, 10, 12 mil)
- No soldering required
- Easy Installation on designed substrate



| Substrate | Thickness(mil) | Dielectric Constant | Available Wave Launch Connector | | |
|-----------|----------------|---------------------|---------------------------------|--------|-------|
| | | | SMA | 2.92mm | 2.4mm |
| RO4003C | 8.0 | 3.55 | O | O | O |
| | 12.0 | | O | O | O |
| RO4350B | 10.0 | 3.65 | O | O | O |
| Du5880 | 5.0 | 2.20 | O | O | O |
| | 10.0 | | O | O | O |

■ Application

- RFIC Chip set evaluation board
- High data rate ASIC and SoC evaluation module test
- Substrate Characterization

■ Specification (Board Edge Type)

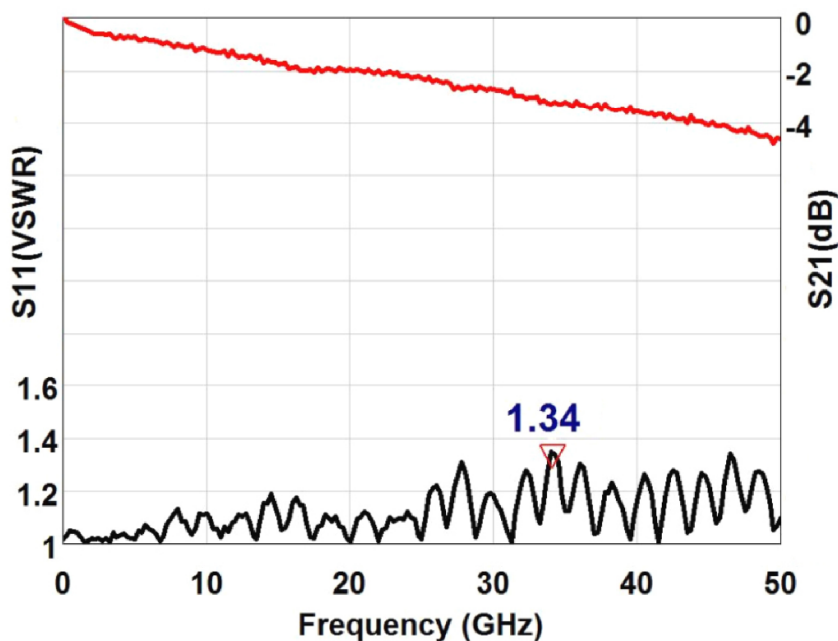
| Scope | Items | Specification |
|------------|----------------|--|
| Electrical | Freq. range | DC to 27 GHz (SMA type) DC to 40 GHz (2.92 mm type) DC to 50 GHz (2.4 mm type) |
| | Impedance | 50 Ohm |
| | VSWR(Max) | 1.34 : 1 (to 50 GHz) |
| Material | Connector type | SMA, 2.92 mm, 2.4 mm |
| | Body & Block | Stainless Steel |
| | PIN | BeCu with Gold Plated |

* RoHS Compliant

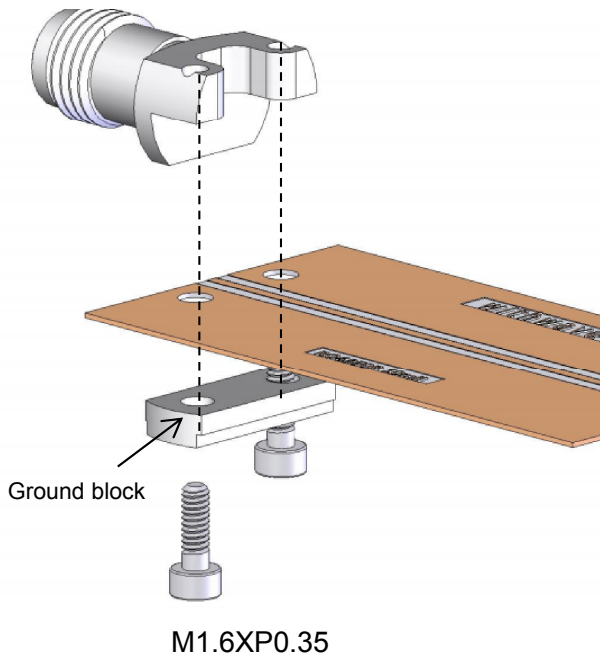
■ Measurement data



- Connector : 2.4 mm
- Substrate : RO4350B(10 mil)
- Trace length : 40 mm (microstrip)



Installation Procedure



STEP 1 :

Mount wave launch connector on substrate in the edge position of substrate.

STEP 2 :

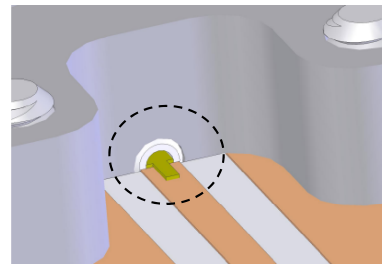
Ensure flat pin should be centered on the trace

STEP 3:

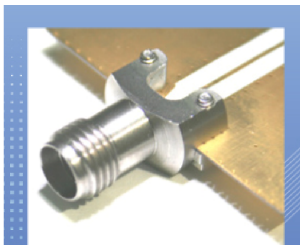
Ensure ground block should be tighten against the substrate using two screws.

STEP 4:

Solder the flat pin to the trace on substrate



Ordering Information



- Board Edge Type
- No need of ground soldering
- Easy installation

| Substrate | Thickness(mil) | Wave Launch Connector | | |
|-----------|----------------|-----------------------|------------------|------------------|
| | | SMA | 2.92mm | 2.4mm |
| RO4003C | 8.0 | SM06FS001 | SM03FS001 | SM02FS001 |
| | 12.0 | SM06FS002 | SM03FS002 | SM02FS002 |
| RO4350B | 10.0 | SM06FS003 | SM03FS003 | SM02FS003 |
| Du5880 | 5.0 | SM06FS004 | SM03FS004 | SM02FS004 |
| | 10.0 | SM06FS005 | SM03FS005 | SM02FS005 |



- Panel Mount Type
- No need of glass bead
- Simple circuit housing design

| Substrate | Thickness(mil) | Part Number | | |
|-----------|----------------|------------------|------------------|------------------|
| | | SMA | 2.92mm | 2.4mm |
| RO4003C | 8.0 | PM06FS001 | PM03FS001 | PM02FS001 |
| | 12.0 | PM06FS002 | PM03FS002 | PM02FS002 |
| RO4350B | 10.0 | PM06FS003 | PM03FS003 | PM02FS003 |
| Du5880 | 5.0 | PM06FS004 | PM03FS004 | PM02FS004 |
| | 10.0 | PM06FS005 | PM03FS005 | PM02FS005 |

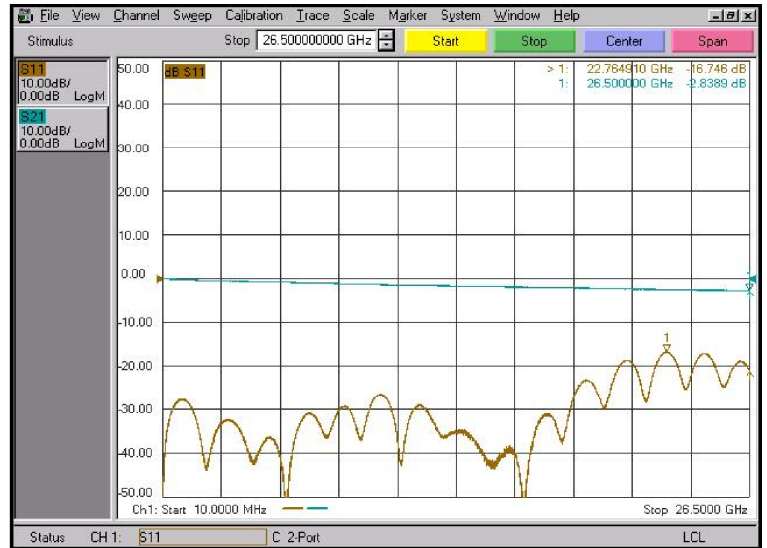
Test Result

SMA Type

Freq. : 10 MHz to 26.5 GHz

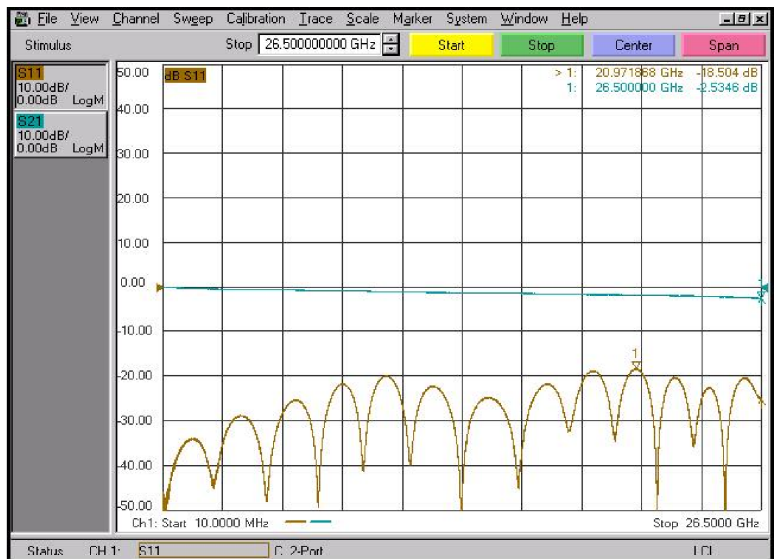
Substrate : RO4003C (8 mil)

Part No. : SM06FS001



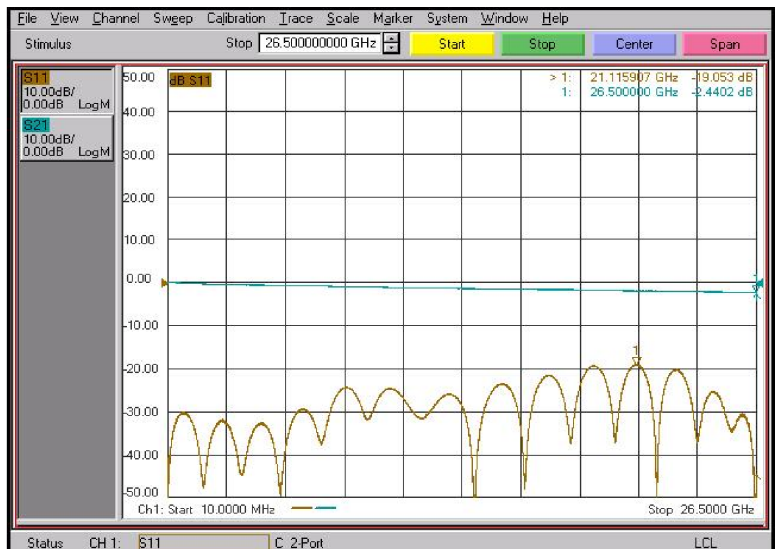
Substrate :RO4003C (12 mil)

Part No. : SM06FS002



Substrate :RO4350B (10 mil)

Part No. : SM06FS003



** Trace length : 40 mm (Microstrip) **

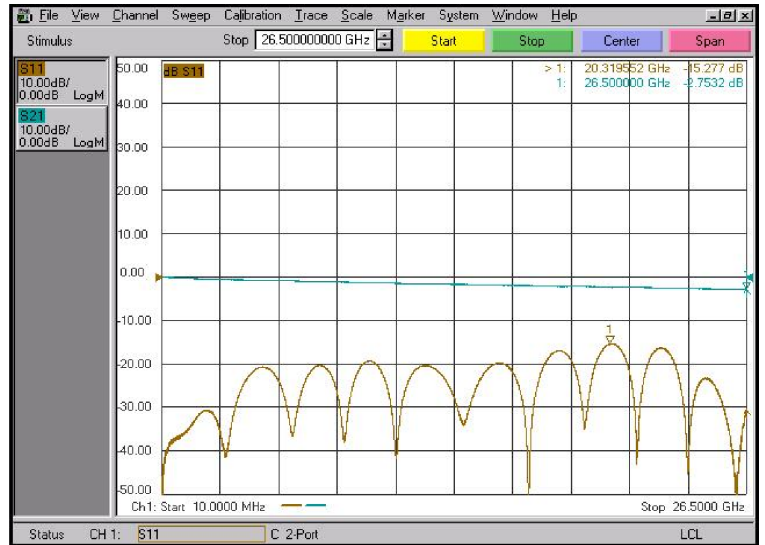
Test Result

SMA Type

Freq. : 10 MHz to 26.5 GHz

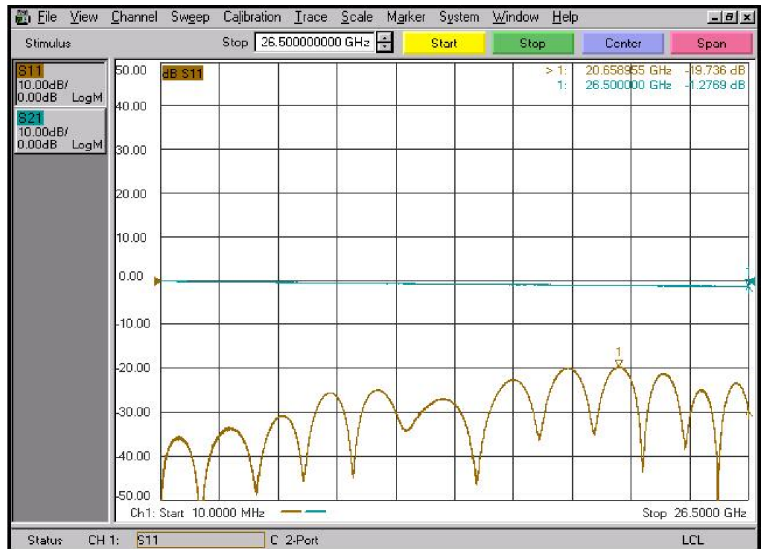
Substrate : Du5880 (5 mil)

Part No. : SM06FS004



Substrate : Du5880 (10 mil)

Part No. : SM06FS005



** Trace length : 40 mm (Microstrip) **



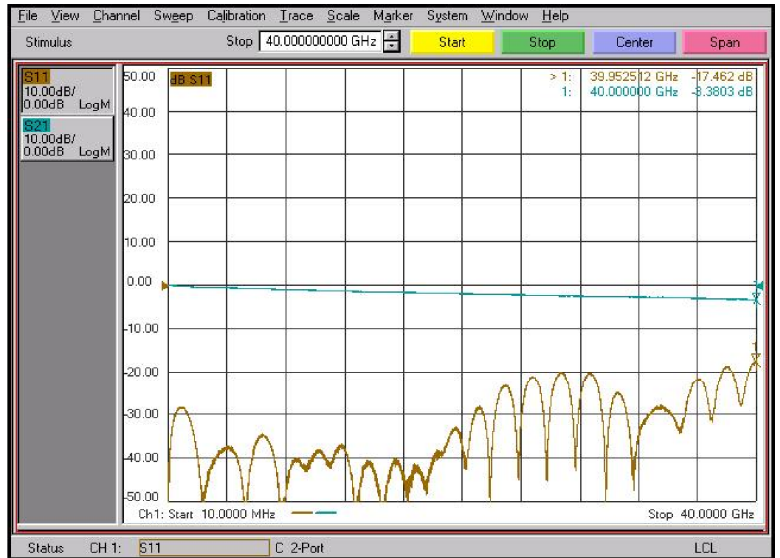
Test Result

2.92mm Type

Freq. : 10 MHz to 40 GHz

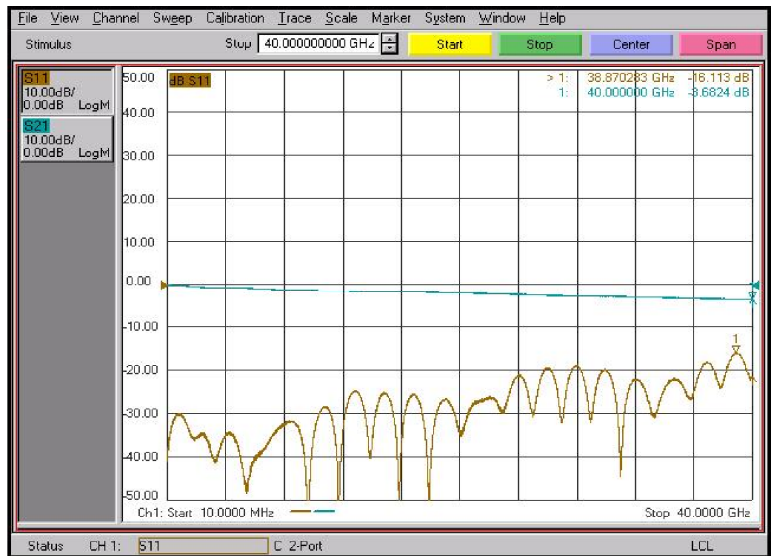
Substrate : RO4003C (8 mil)

Part No. : SM03FS001



Substrate :RO4003C (12 mil)

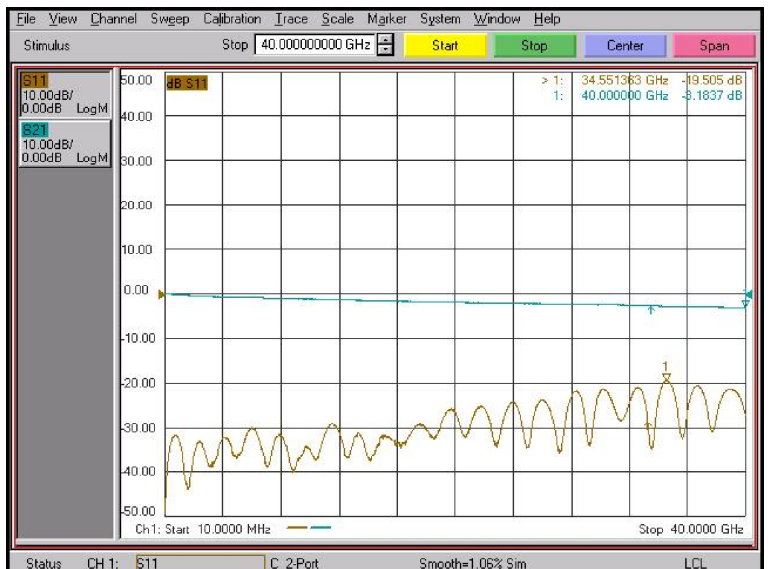
Part No. : SM03FS002



** Trace length : 40 mm (Microstrip) **

Substrate :RO4350B (10 mil)

Part No. : SM03FS003



** Trace length : 40 mm (Microstrip) **

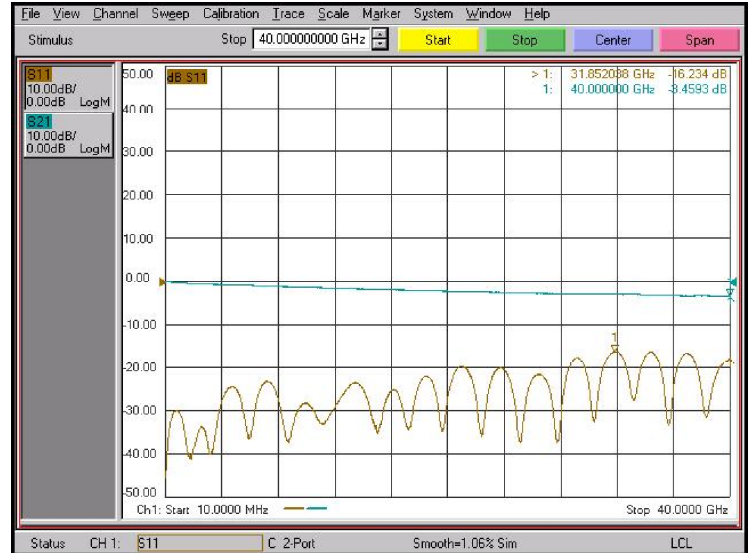
Test Result

2.92mm Type

Freq. : 10 MHz to 40 GHz

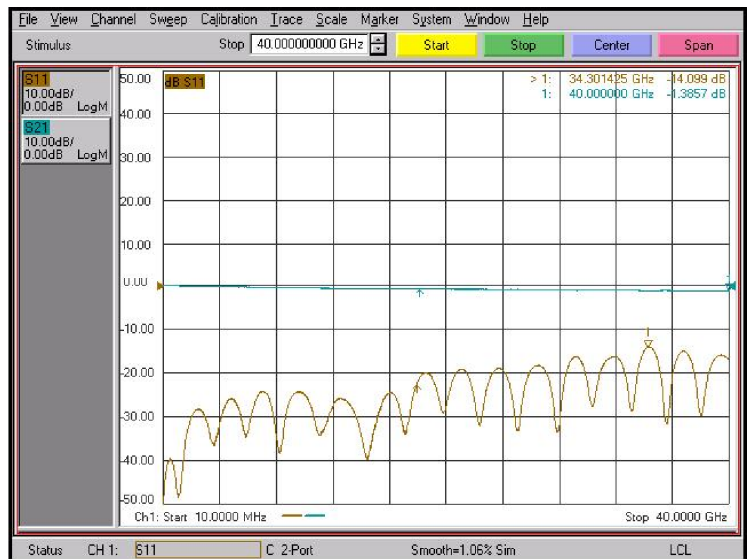
Substrate : Du5880 (5 mil)

Part No. : SM03FS004



Substrate : Du5880 (10 mil)

Part No. : SM03FS005



** Trace length : 40 mm (Microstrip) **



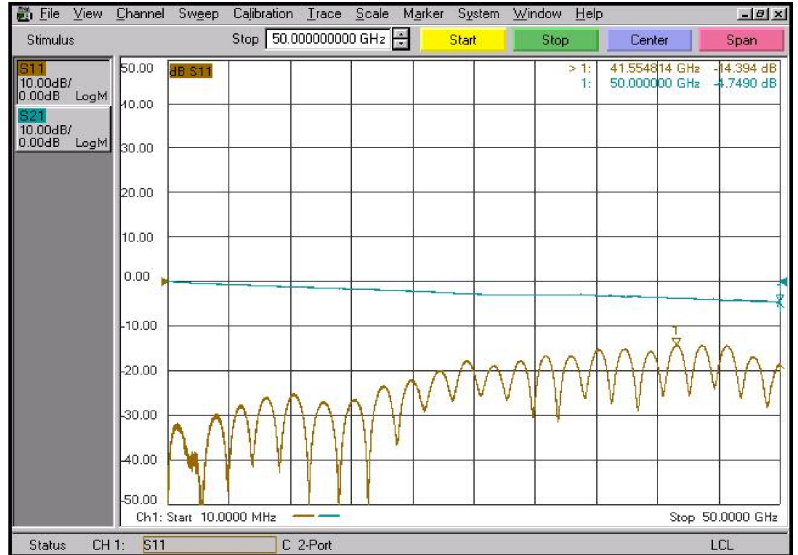
■ Test Result

2.4mm Type

Freq. : 10 MHz to 50 GHz

Substrate : RO4003C (8 mil)

Part No. : SM02FS001



Substrate :RO4350B (12 mil)

Part No. : SM02FS003



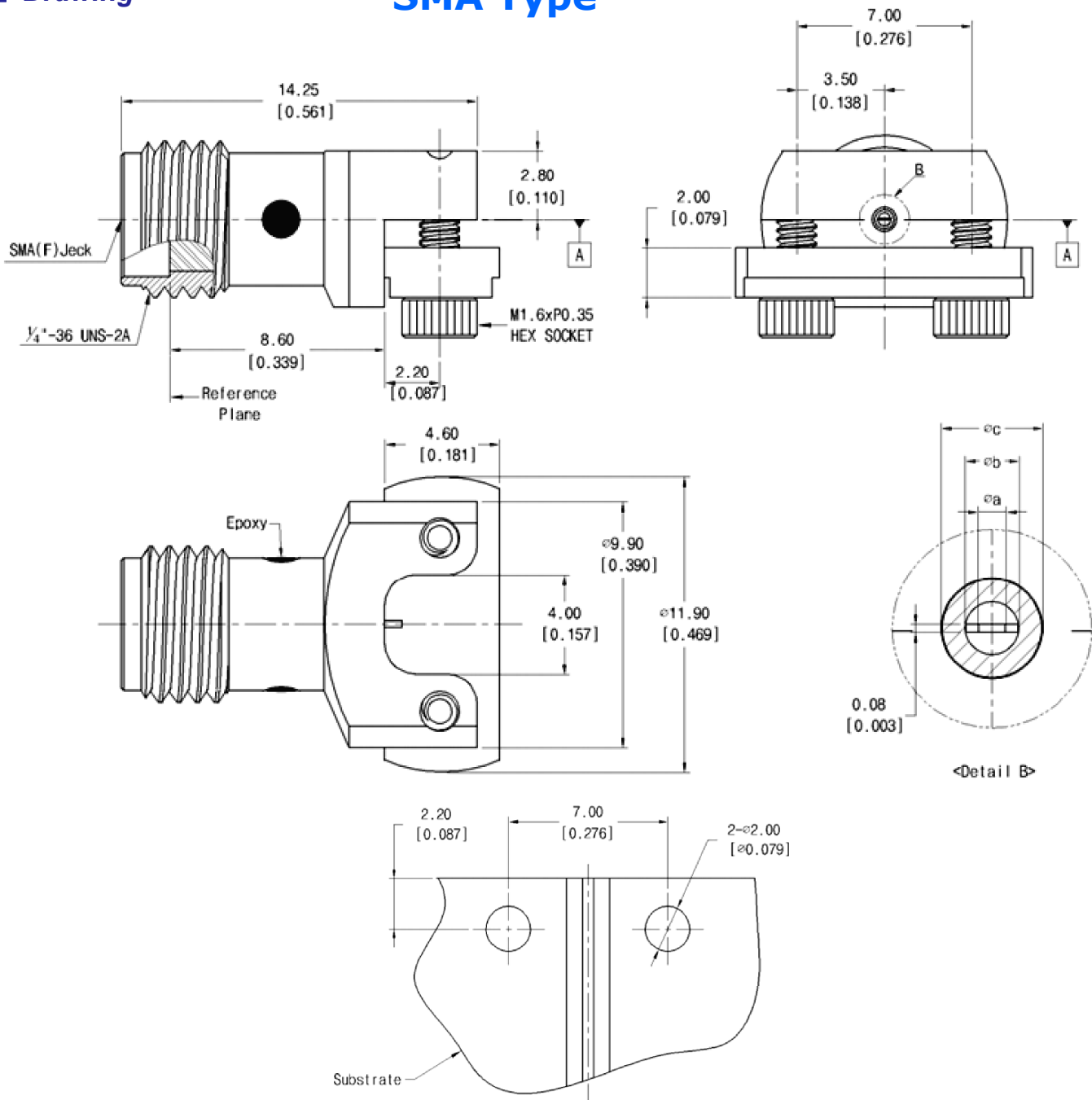
** Trace length : 40 mm (Microstrip) **



■ Drawing

SMA Type

Unit : mm



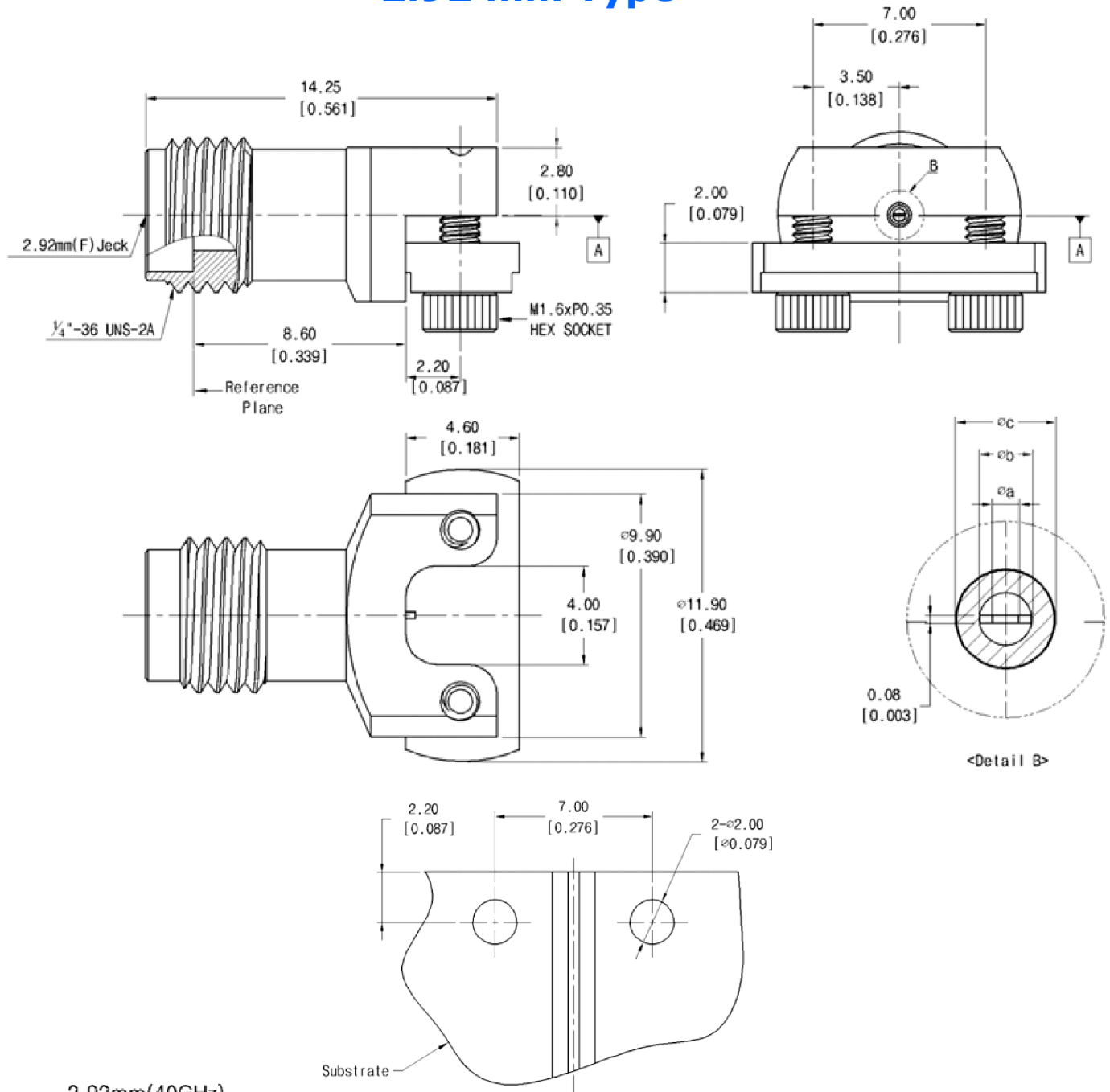
SMA(26.5GHz)

| Type | PCB | | Pin Diameter | | Dielectric Dia. | Part No. |
|---------|------------------|---------------|----------------|----------------|-----------------|-----------|
| | Substrate Thick. | Pattern Width | e _a | e _b | e _c | |
| | mil | mm | mm | mm | mm | |
| RO4003C | 8.0 | 0.436 | 0.28 | 0.42 | 0.82 | SM06FS001 |
| | 12.0 | 0.677 | 0.40 | 0.64 | 1.14 | SM06FS002 |
| RO4350B | 10.0 | 0.545 | 0.28 | 0.54 | 1.00 | SM06FS003 |
| Du5880 | 5.0 | 0.366 | 0.28 | 0.34 | 0.70 | SM06FS004 |
| | 10.0 | 0.765 | 0.40 | 0.72 | 1.24 | SM06FS005 |

■ Drawing

2.92 mm Type

Unit : mm



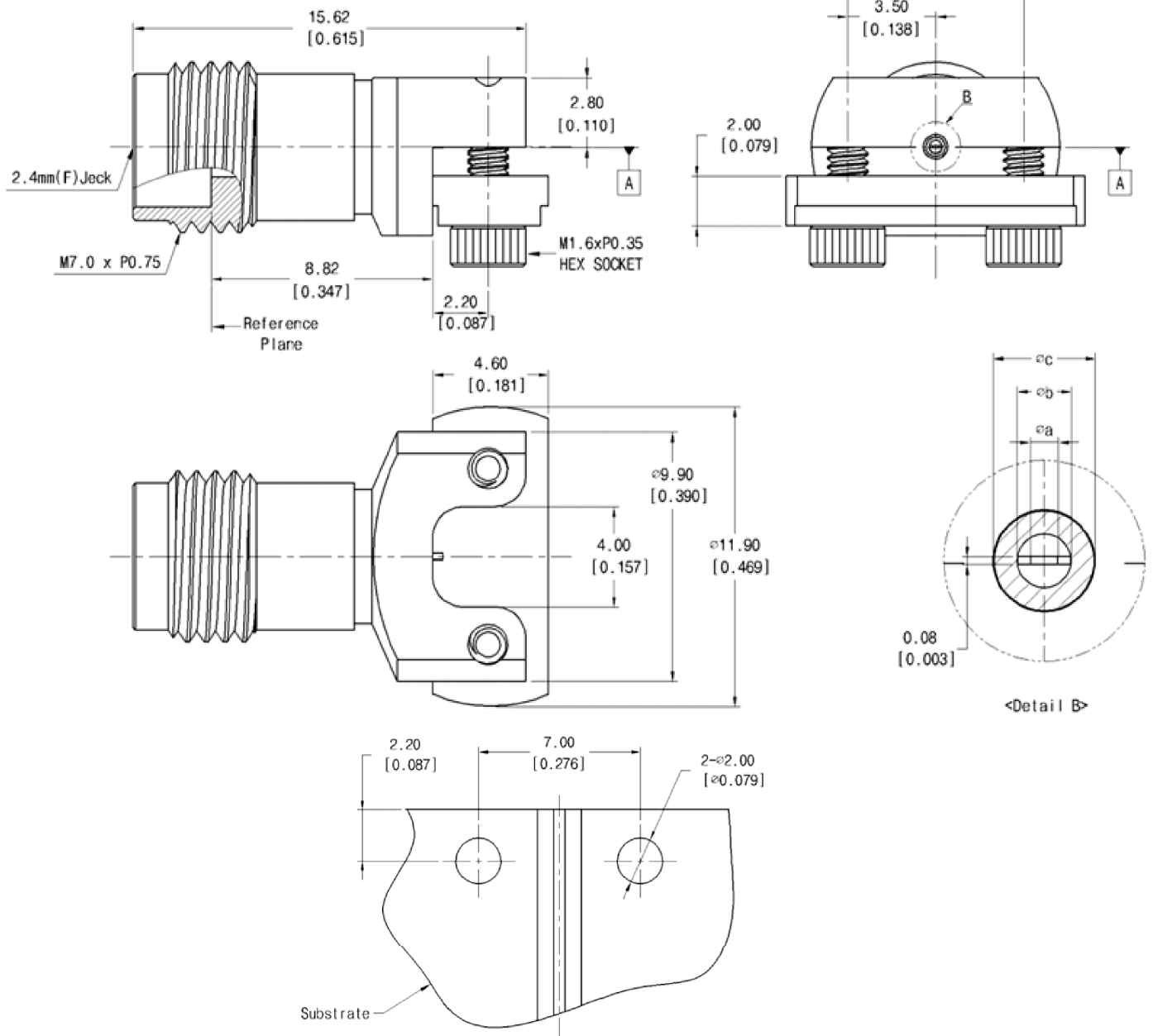
2.92mm(40GHz)

| Type | PCB | | Pin Diameter | | Dielectric Dia. | Part No. |
|---------|------------------|---------------|--------------|------|-----------------|-----------|
| | Substrate Thick. | Pattern Width | ea | eb | ec | |
| RO4003C | 8.0 | 0.436 | 0.28 | 0.42 | 0.82 | SM03FS001 |
| | 12.0 | 0.677 | 0.40 | 0.64 | 1.14 | SM03FS002 |
| RO4350B | 10.0 | 0.545 | 0.28 | 0.54 | 1.00 | SM03FS003 |
| Du5880 | 5.0 | 0.366 | 0.28 | 0.34 | 0.70 | SM03FS004 |
| | 10.0 | 0.765 | 0.40 | 0.72 | 1.24 | SM03FS005 |

■ Drawing

2.4 mm Type

Unit : mm



2.4mm(50GHz)

| Type | PCB | | Pin Diameter | | Dielectric Dia. | Part No. |
|---------|------------------|---------------|-----------------|-----------------|-----------------|-----------|
| | Substrate Thick. | Pattern Width | $\varnothing a$ | $\varnothing b$ | $\varnothing c$ | |
| | mil | | mm | | | |
| RO4003C | 8.0 | 0.436 | 0.28 | 0.42 | 0.82 | SM02FS001 |
| | 12.0 | 0.677 | 0.40 | 0.64 | 1.14 | SM02FS002 |
| RO4350B | 10.0 | 0.545 | 0.28 | 0.54 | 1.00 | SM02FS003 |
| Du5880 | 5.0 | 0.366 | 0.28 | 0.34 | 0.70 | SM02FS004 |
| | 10.0 | 0.765 | 0.40 | 0.72 | 1.24 | SM02FS005 |