

**2.92 mm, 2.4 mm, 1.85 mm**

**Juncoax End Launch connectors** are specially designed for well-used high frequency substrates to minimize electromagnetic effects including impedance discontinuities from coaxial to GCPWG (Grounded Coplanar Waveguide) and Top Ground Microstrip structure. The types of connectors are 2.92 mm, 2.4 mm and 1.85 mm. We solve your performance and cost problems.

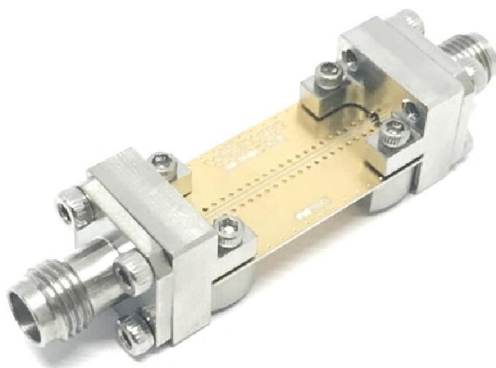


## ■ Features

- Now available in : **2.92 mm (40 GHz), 2.40 mm (50 GHz), 1.85 mm (67 GHz)**
- **GCPWG, Top Ground Microstrip structure**
- Easy Installation on designed substrate
- No Soldering required

## ■ Application

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



**2.92 mm, 2.4 mm, 1.85 mm**

## ■ Specification

| Scope      | Items          | Specification                                                                            |
|------------|----------------|------------------------------------------------------------------------------------------|
| Electrical | Freq. range    | DC to 40 GHz (2.92 mm type)<br>DC to 50 GHz (2.4 mm type)<br>DC to 67 GHz (1.85 mm type) |
|            | Impedance      | 50 Ohm                                                                                   |
|            | VSWR(Max)      | 1.40 : 1 (to 40 GHz)<br>1.40 : 1 (to 50 GHz)<br>1.40 : 1 (to 67 GHz)                     |
| Material   | Connector type | 2.92 mm, 2.4 mm, 1.85 mm                                                                 |
|            | Body & Block   | Stainless Steel                                                                          |
|            | Contact        | BeCu with Gold Plated                                                                    |

\* RoHS Compliant



## ■ Ordering Information

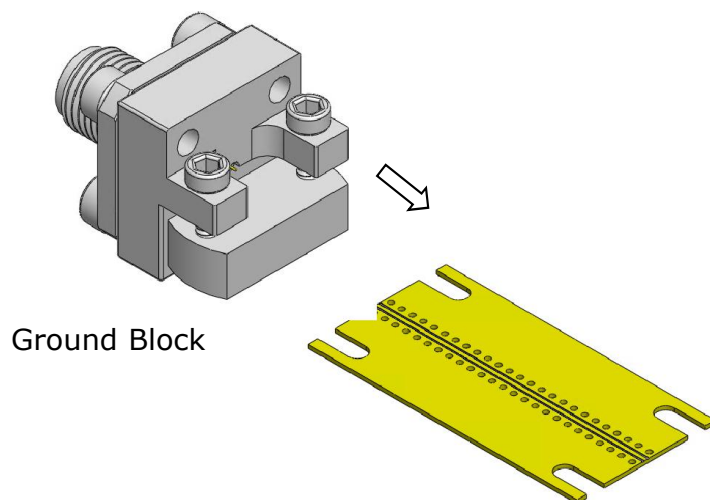
| Application                 | Connector | Type   | Part No.  |
|-----------------------------|-----------|--------|-----------|
| <b>Standard Profile</b><br> | 2.92 mm   | Female | EL03FS001 |
|                             |           | Male   | EL03MS001 |
|                             | 2.4 mm    | Female | EL02FS001 |
|                             |           | Male   | EL02MS001 |
|                             | 1.85 mm   | Female | EL01FS001 |
|                             |           | Male   | EL01MS001 |

| Application            | Connector | Type   | Part No.  |
|------------------------|-----------|--------|-----------|
| <b>Low Profile</b><br> | 2.92 mm   | Female | EL03FS002 |
|                        |           | Male   | EL03MS002 |
|                        | 2.4 mm    | Female | EL02FS002 |
|                        |           | Male   | EL02MS002 |
|                        | 1.85 mm   | Female | EL01FS002 |
|                        |           | Male   | EL01MS002 |

### ■ Installation Procedure

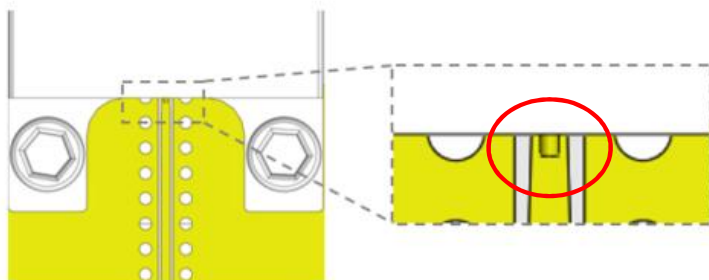
#### STEP 1 :

Insert end launch connector (including block & screws) in the edge position of substrate.



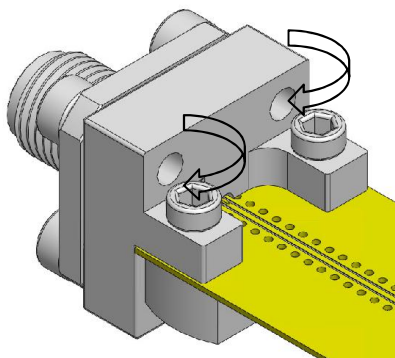
#### STEP 2:

Ensure the pin is centered on the trace.



#### STEP 3:

Ensure the block is tight against the substrate.



### Test Result

## 2.92mm Type GCPWG Structure

Freq. : 10 MHz to 40 GHz

Substrate : RO4003C (8 mil)

Part No. : EL03FS002



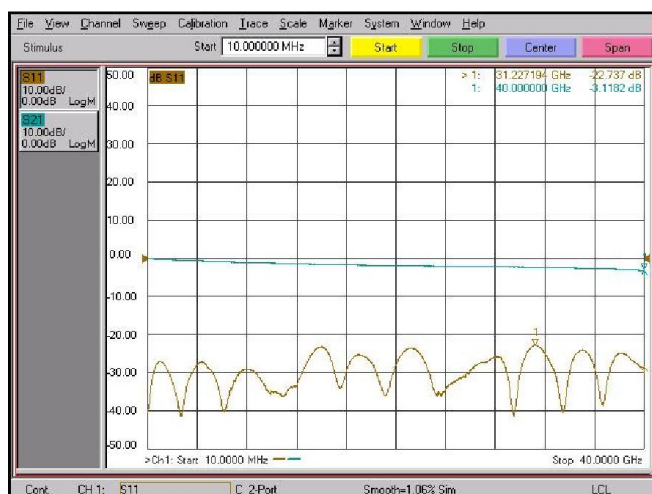
Substrate : RO4350B (10 mil)

Part No. : EL03FS002



Substrate : Duroid 5880 (5 mil)

Part No. : EL03FS002



\* Substrate length : 1 inch (=25.4 mm)

### Test Result

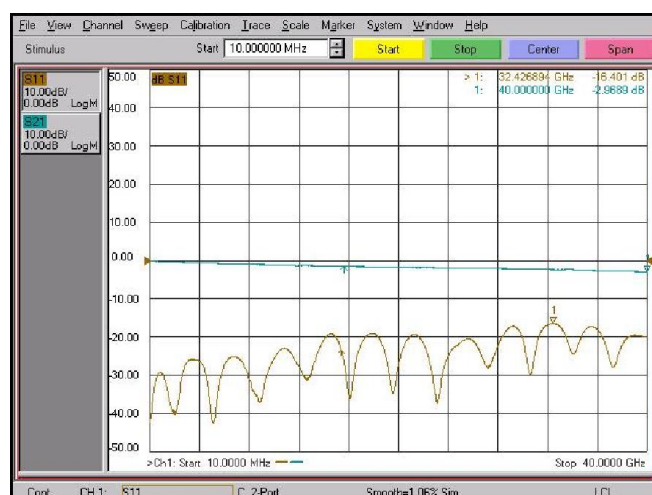
## 2.92mm Type

### Top Ground Microstrip

Freq. : 10 MHz to 40 GHz

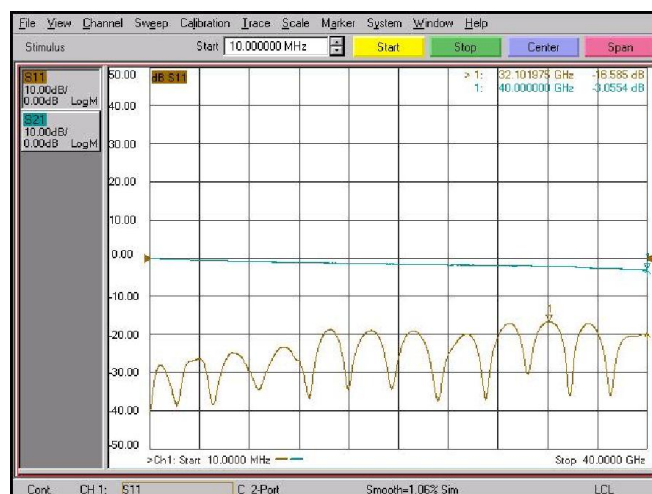
Substrate : RO4003C (8 mil)

Part No. : EL03FS002



Substrate : RO4350B (10 mil)

Part No. : EL03FS002



Substrate : Duroid 5880 (5 mil)

Part No. : EL03FS002



\* Substrate length : 1 inch (=25.4 mm)

# End Launch Connectors

2.92 mm, 2.4 mm, 1.85 mm

## Test Result

### 2.4 mm Type GCPWG Structure

Freq. : 10 MHz to 50 GHz

Substrate : RO4003C (8 mil)

Part No. : EL02FS002



Substrate : RO4350B (10 mil)

Part No. : EL02FS002



Substrate : Duroid 5880 (5 mil)

Part No. : EL02FS002



\* Substrate length : 1 inch (=25.4 mm)

# End Launch Connectors

2.92 mm, 2.4 mm, 1.85 mm

## Test Result

### 2.4 mm Type

#### Top Ground Microstrip

Substrate : RO4003C (8 mil)

Part No. : EL02FS002

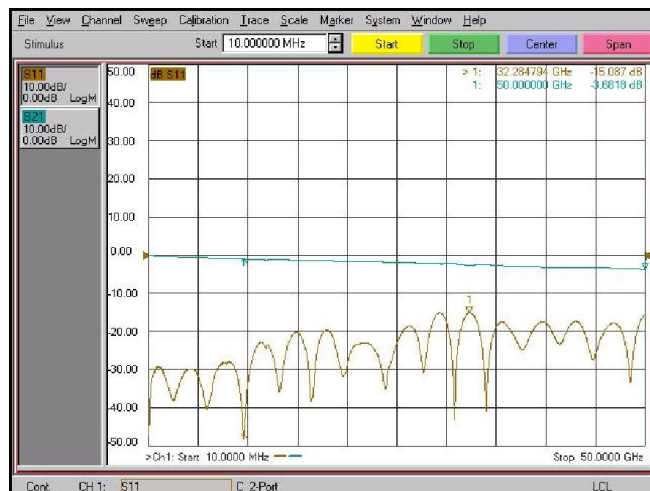


Freq. : 10 MHz to 50 GHz



Substrate : RO4350B (10 mil)

Part No. : EL02FS002



Substrate : Duroid 5880 (5 mil)

Part No. : EL02FS002



### ■ Test Result

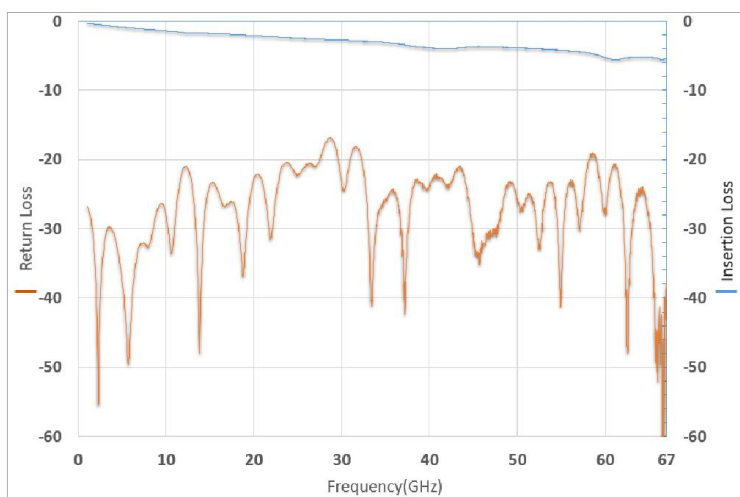
## 1.85 mm Type GCPWG Structure

Substrate : RO4003C (8 mil)

Part No. : EL01FS002

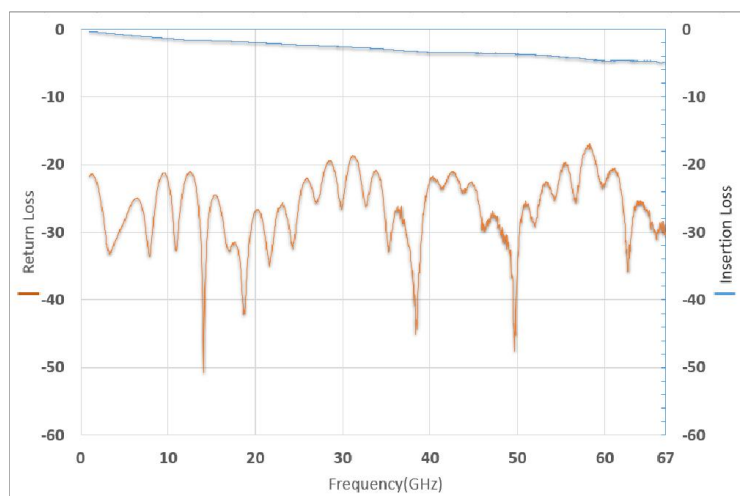


Freq. : 10 MHz to 67 GHz



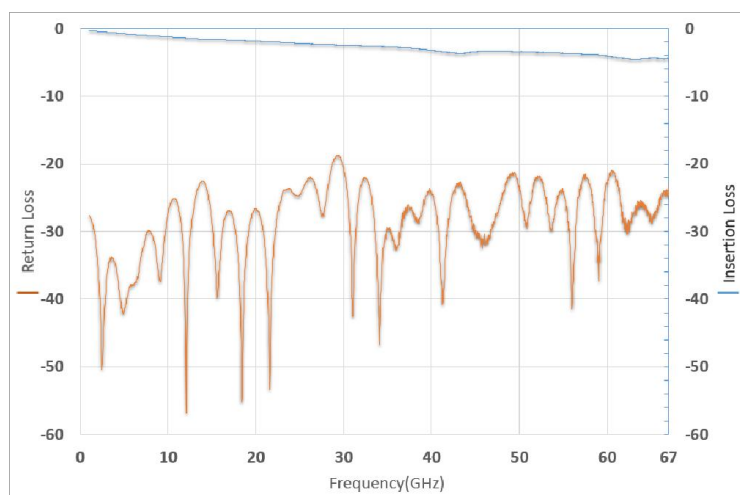
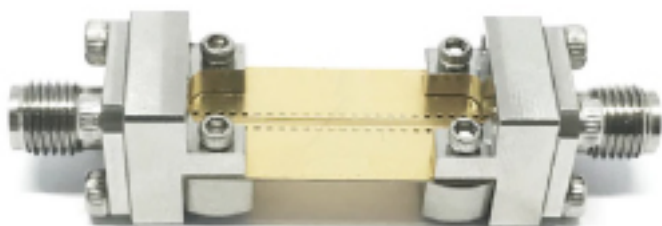
Substrate : RO4350B (10 mil)

Part No. : EL01FS002



Substrate : Duroid 5880 (5 mil)

Part No. : EL01FS002



### ■ Test Result

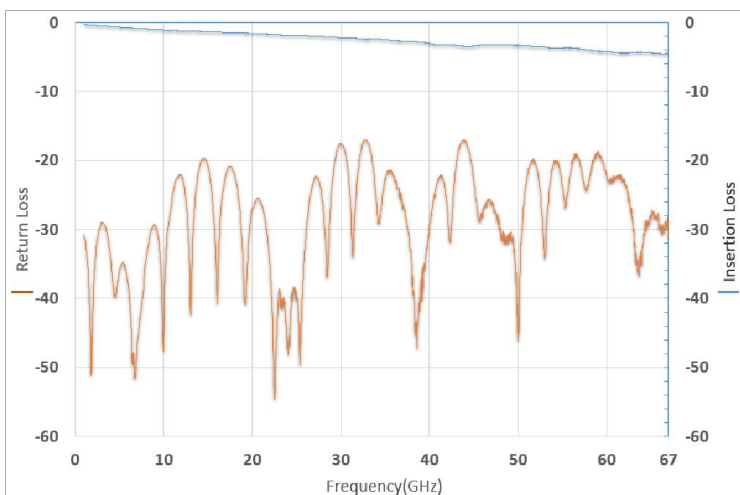
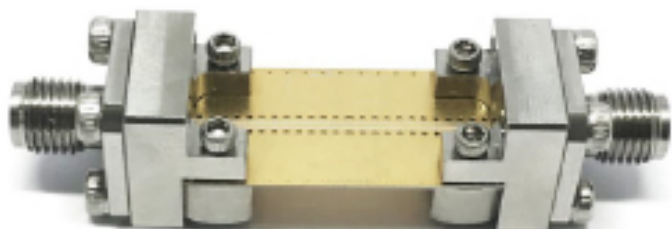
## 1.85 mm Type

### Top Ground Microstrip

Freq. : 10 MHz to 67 GHz

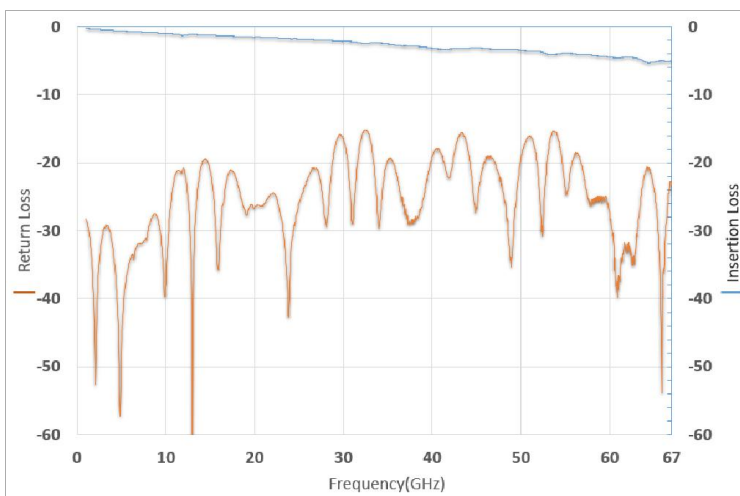
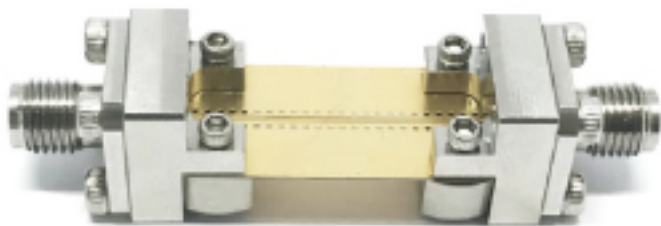
Substrate : RO4003C (8 mil)

Part No. : EL01FS002



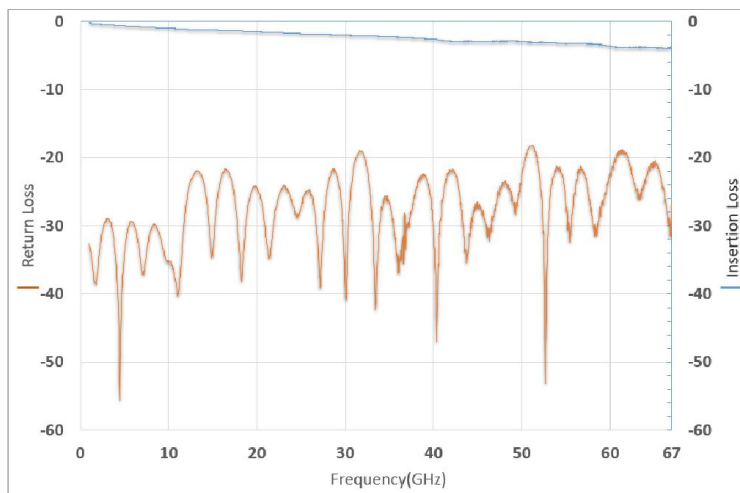
Substrate : RO4350B (10 mil)

Part No. : EL01FS002



Substrate : Duroid 5880 (5 mil)

Part No. : EL01FS002



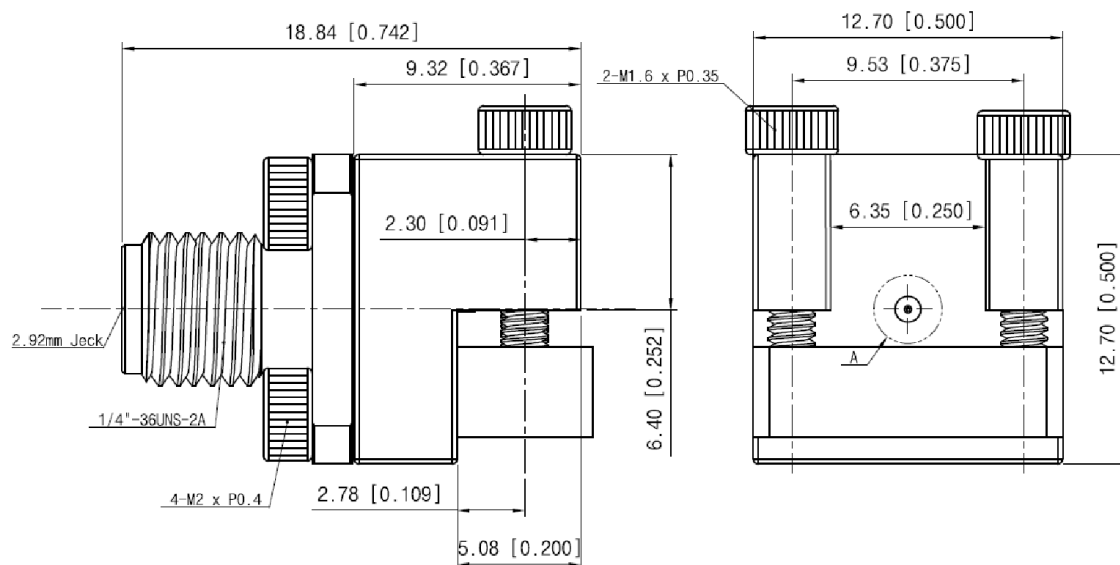
\* Substrate length : 1 inch (=25.4 mm)

### ■ Drawing

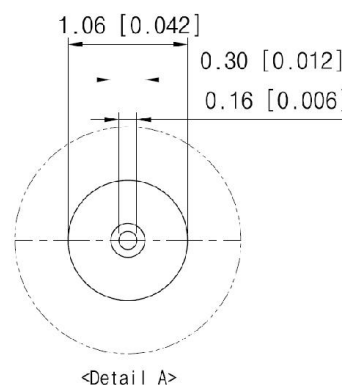
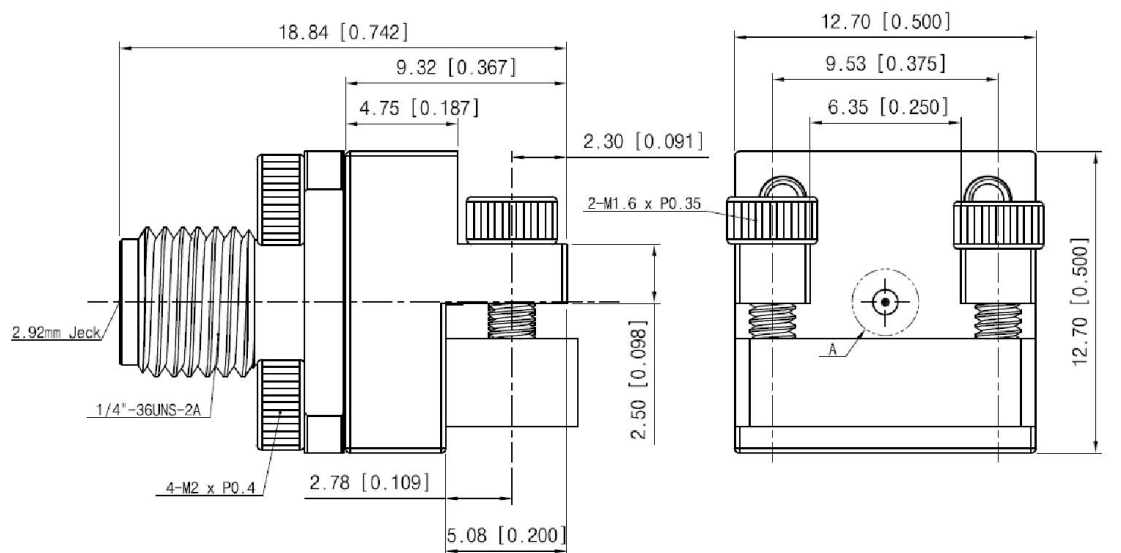
### 2.92 mm Type

Unit : mm[inch]

Part No. : EL03FS001



Part No. : EL03FS002



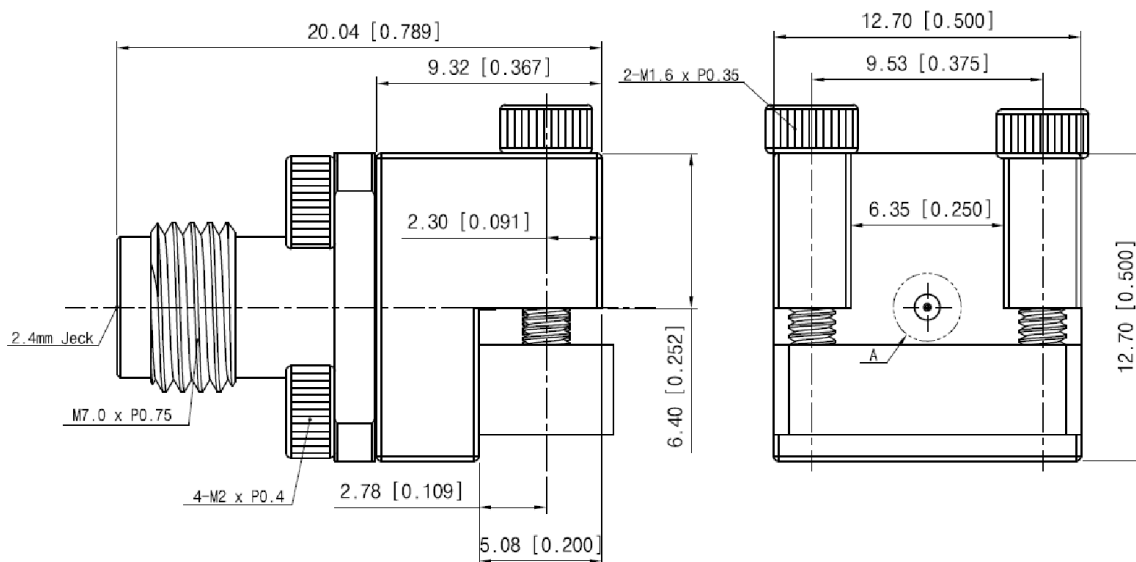
<Detail A>

### ■ Drawing

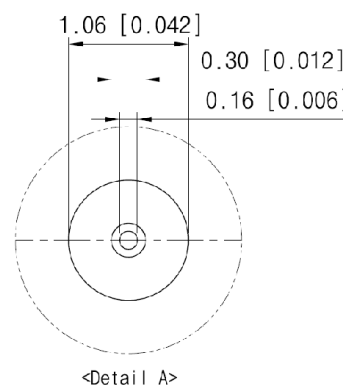
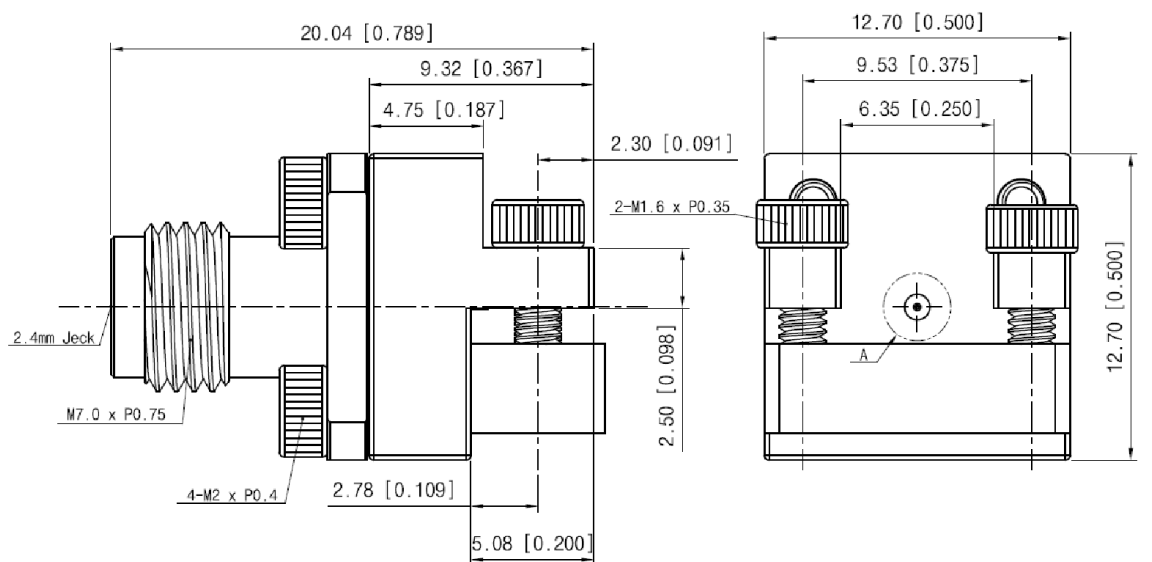
### 2.4 mm Type

Unit : mm[inch]

Part No. : EL02FS001



Part No. : EL02FS002

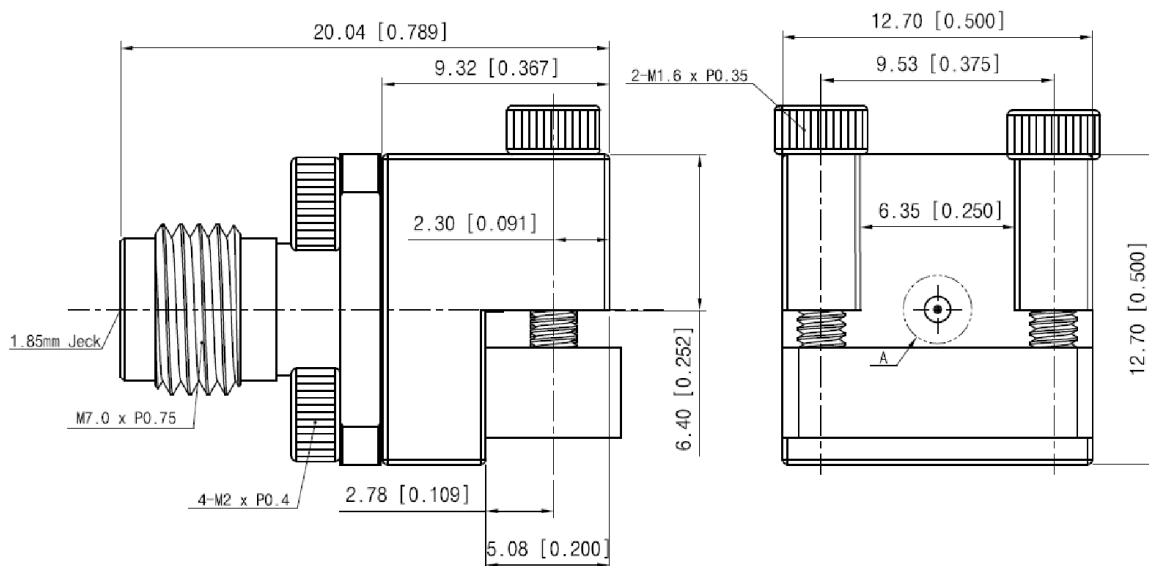


### ■ Drawing

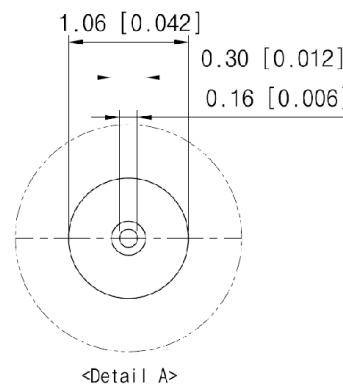
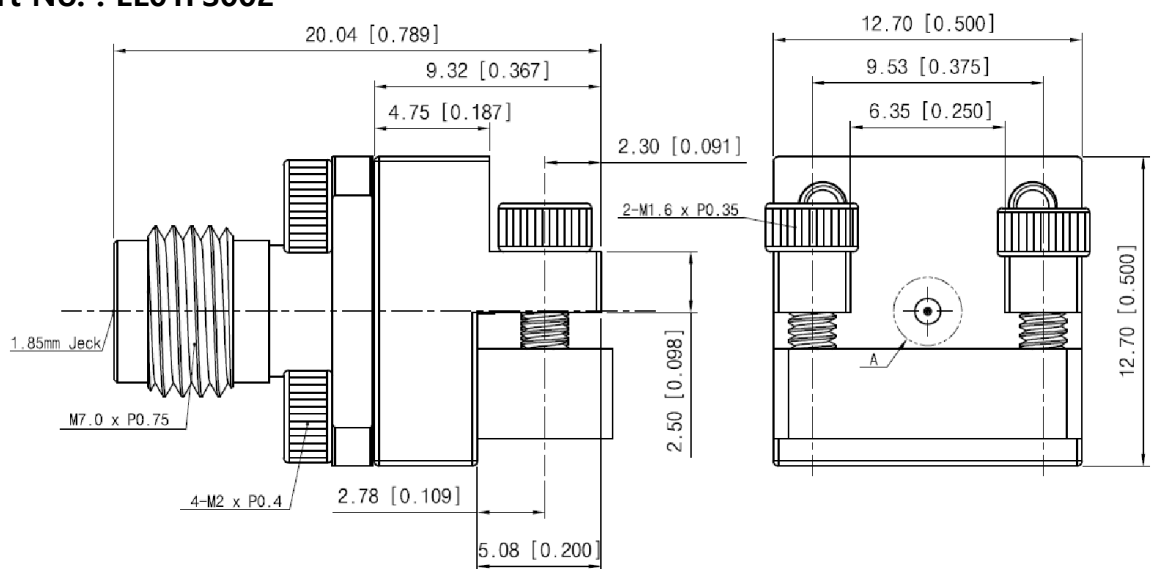
### 1.85 mm Type

Unit : mm[inch]

Part No. : EL01FS001



Part No. : EL01FS002

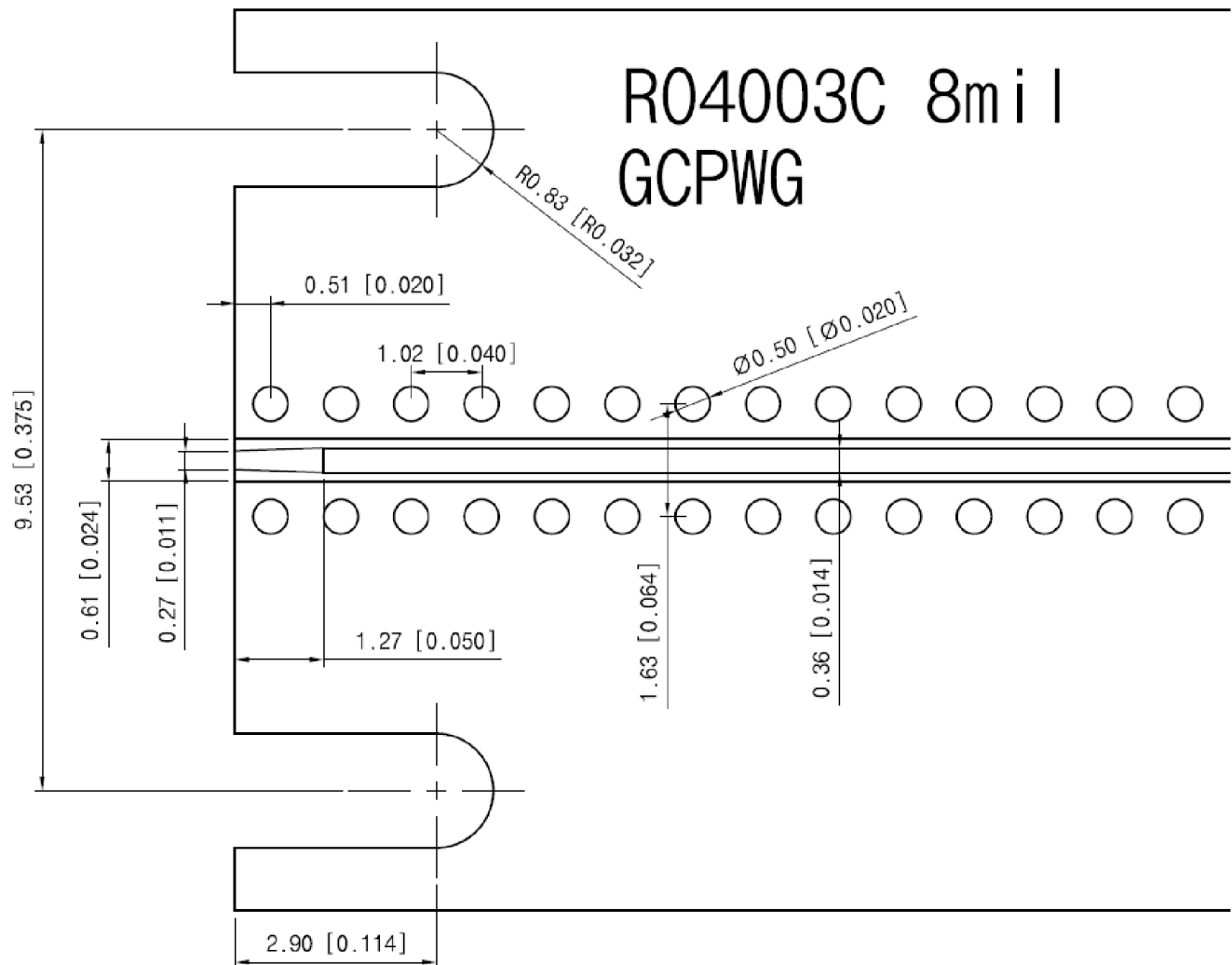


# End Launch Connectors

2.92 mm, 2.4 mm, 1.85 mm

## ■ PCB Layout

Unit : mm[inch]

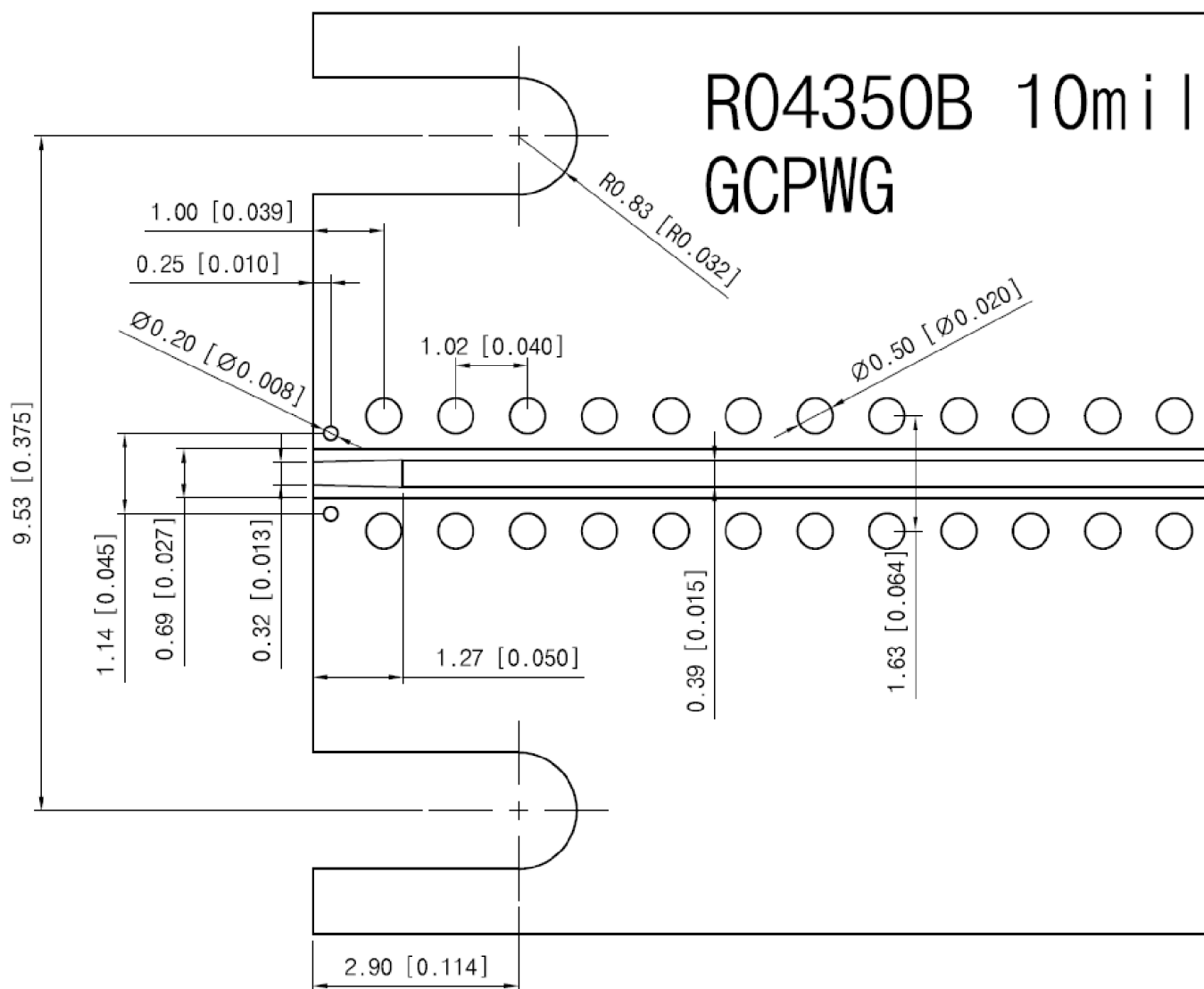


# End Launch Connectors

2.92 mm, 2.4 mm, 1.85 mm

## ■ PCB Layout

Unit : mm[inch]

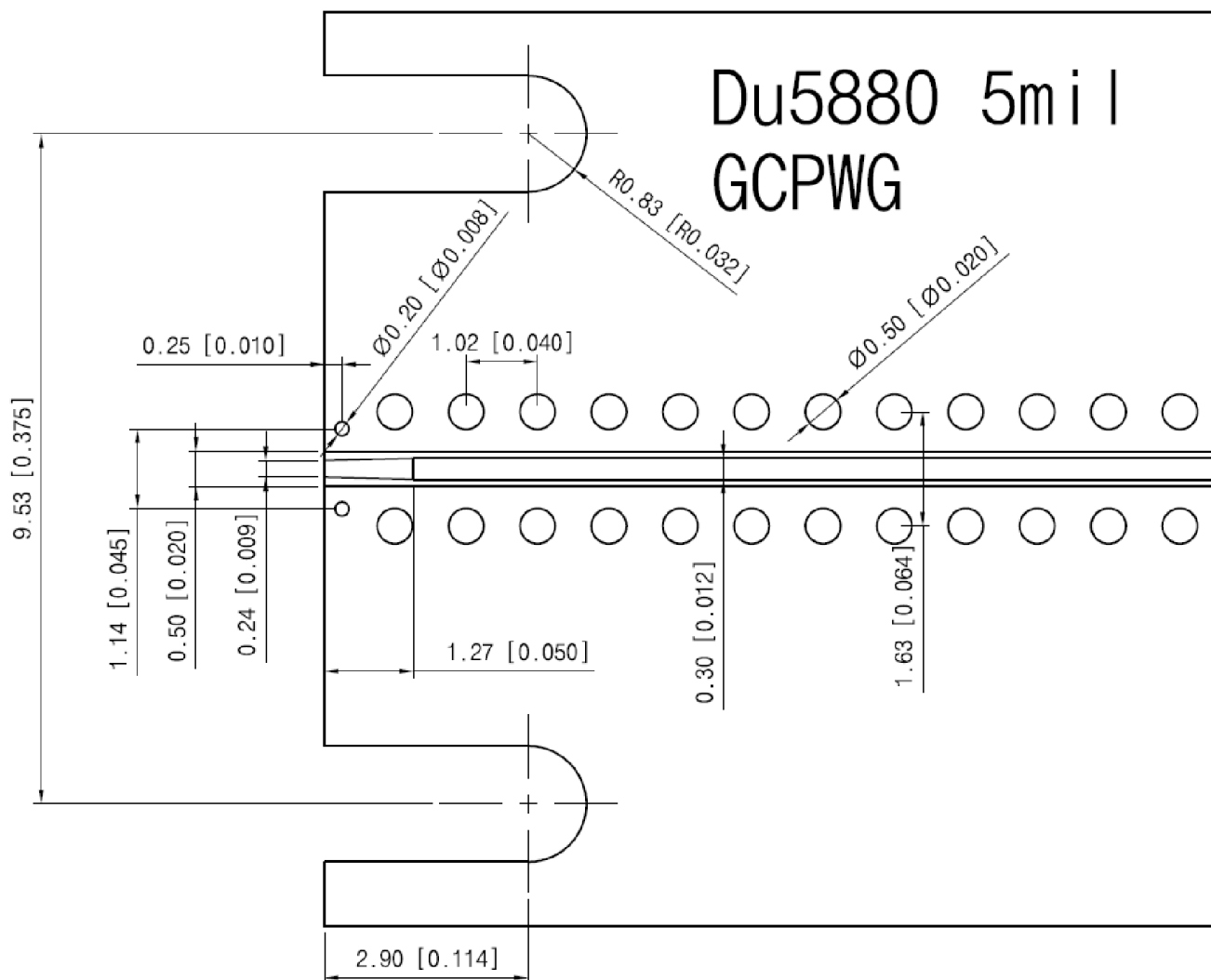


# End Launch Connectors

2.92 mm, 2.4 mm, 1.85 mm

## ■ PCB Layout

Unit : mm[inch]



# End Launch Connectors

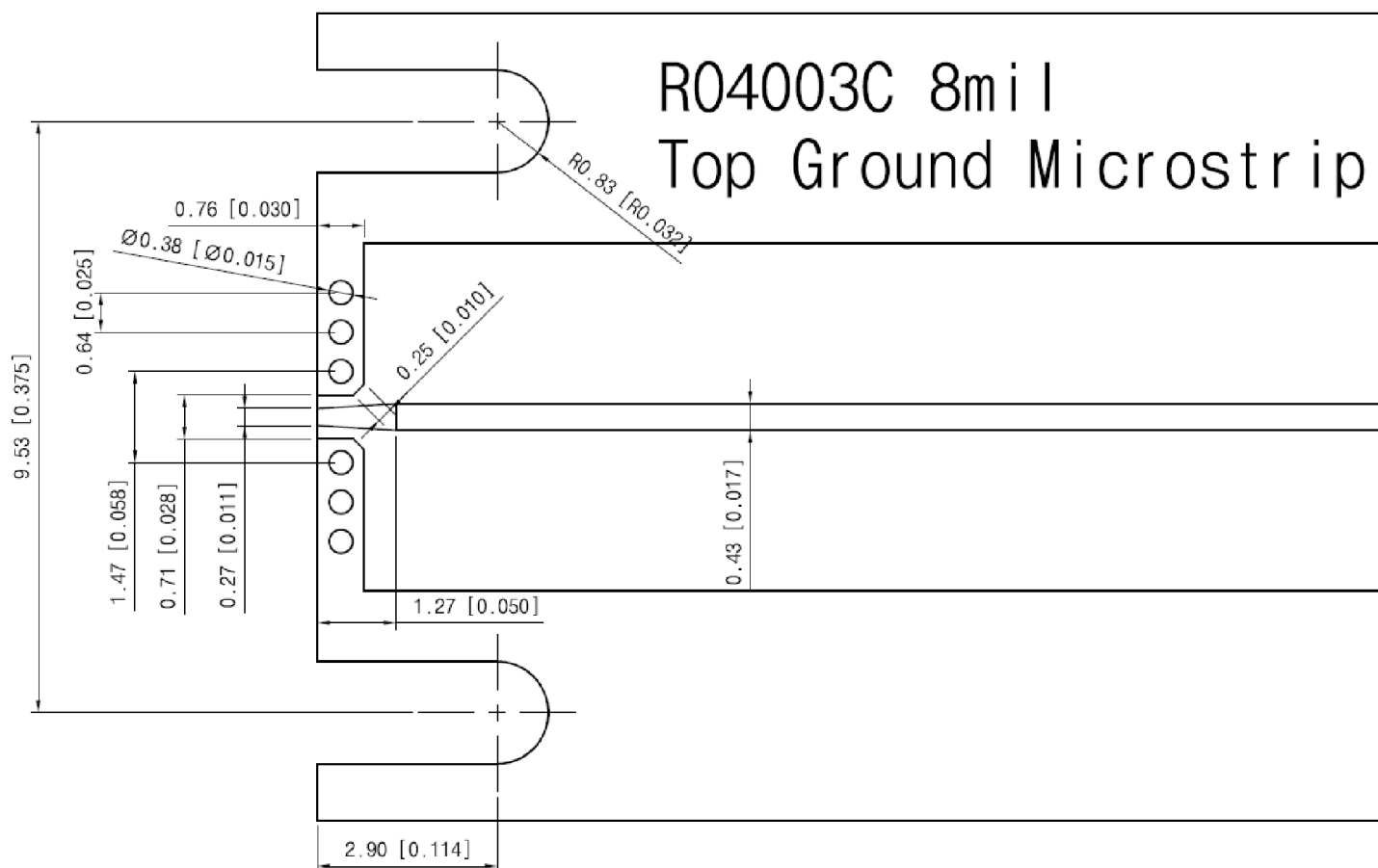
2.92 mm, 2.4 mm, 1.85 mm



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## PCB Layout

Unit : mm[inch]

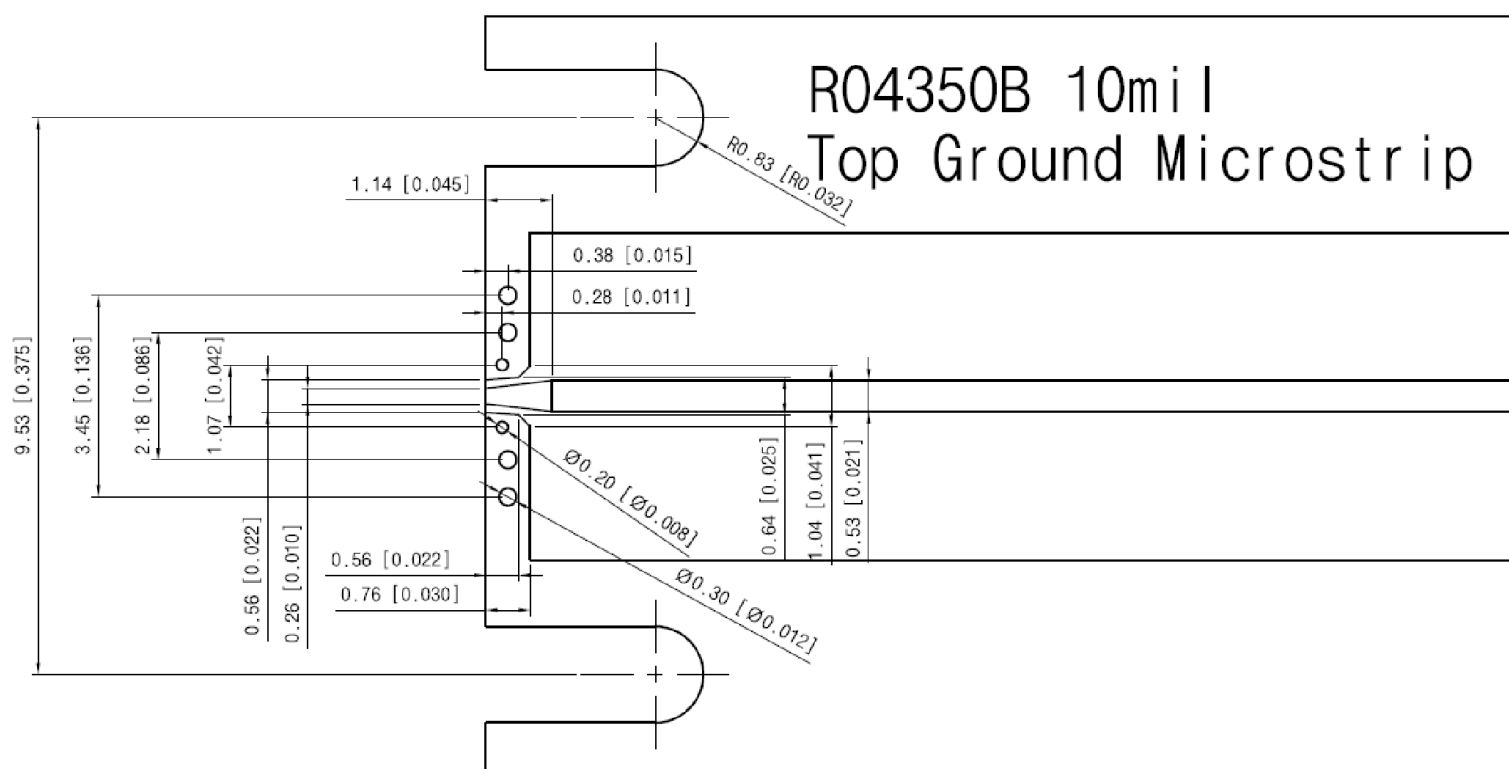


# End Launch Connectors

2.92 mm, 2.4 mm, 1.85 mm

## ■ PCB Layout

Unit : mm[inch]

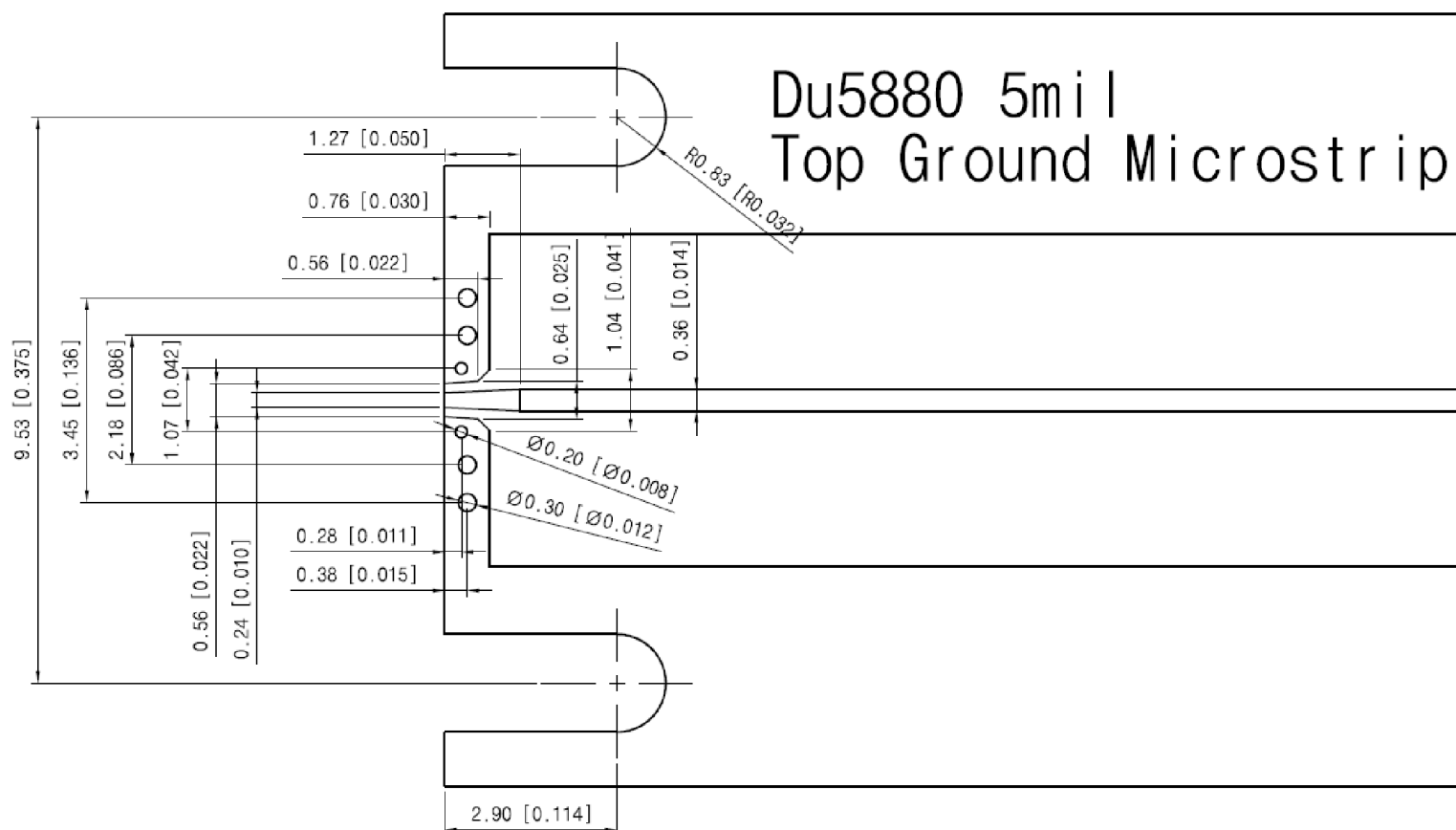


# End Launch Connectors

2.92 mm, 2.4 mm, 1.85 mm

## ■ PCB Layout

Unit : mm[inch]



# End Launch Connectors

**2.92 mm, 2.4 mm, 1.85 mm**



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## ■ Revision History

| Revision | Date       | Changes                                                   |
|----------|------------|-----------------------------------------------------------|
| Ver 1.0  | 2018-04-05 | Released End launch connectors (2.92 mm, 2.4 mm, 1.85 mm) |