# Thin-Film Directional Couplers
## DB0603N 3dB 90° Couplers



## GENERAL DESCRIPTION RFAP TECHNOLOGY

The DB0603N 3dB 90° Coupler is based on thin-film multilayer technology. The technology provides a miniature part with excellent high frequency performance and rugged construction for reliable automatic assembly.

The RFAP LGA 3dB 90° Coupler will be offered in a variety of frequency bands compatible with various types of high frequency wireless systems.

## APPLICATIONS

- Balanced Amplifiers and Signal Distribution in Wireless Communications

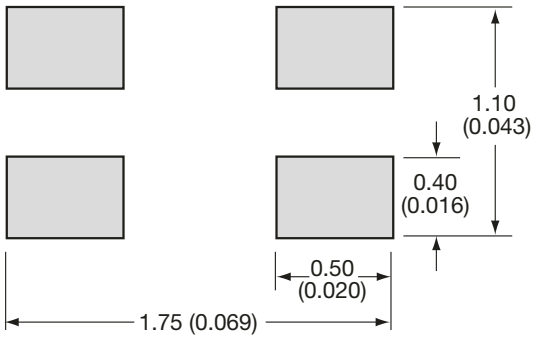
## FEATURES

- Miniature 0603 size
- Low I. Loss
- High Isolation
- Surface Mountable
- RoHS Compliant
- Supplied on T&R
- Power Rating: 10W RF Continuous

## LAND GRID ARRAY ADVANTAGES:

- Inherent Low Profile
- Self Alignment during Reflow
- Excellent Solderability
- Low Parasitics
- Better Heat Dissipation

**Recommended Pad Layout Dimensions mm (inches)**

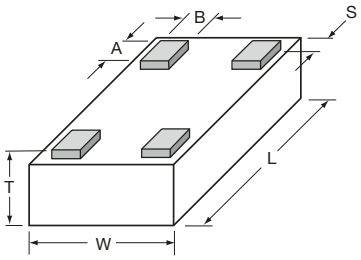



## DIMENSIONS:

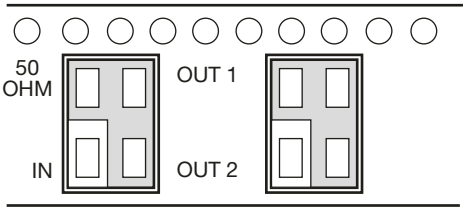
**millimeters (inches)**

| | |
|---|---|
| **L** | 1.60±0.10 (0.063±0.004) |
| **W** | 0.84±0.10 (0.033±0.004) |
| **T** | 0.60±0.10 (0.024±0.004) |
| **A** | 0.25±0.05 (0.010±0.002) |
| **B** | 0.20±0.05 (0.008±0.002) |
| **S** | 0.05±0.05 (0.002±0.002) |

**Bottom View**




## ORIENTATION IN TAPE



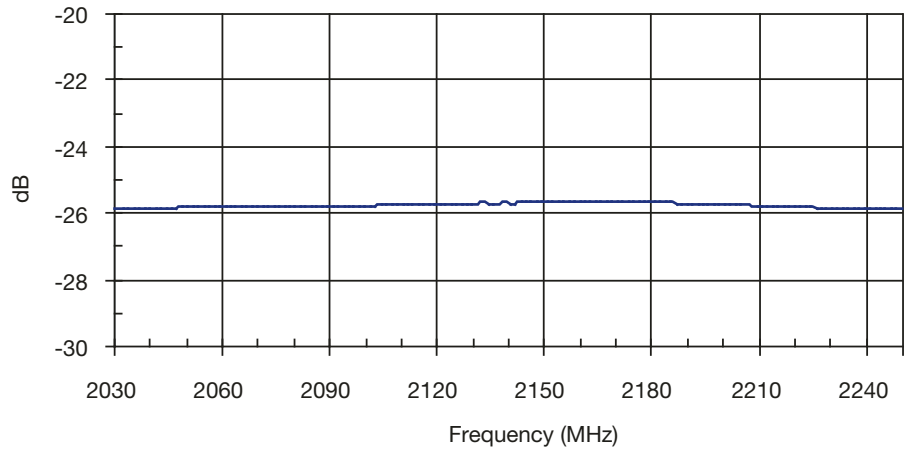

## ELECTRICAL PARAMETERS

| Part Number | Frequency MHz | | Port Impedance Ω | Return Loss [dB] | | Isolation [dB] | | Insertion Loss [dB] | | Ampltidue Balance [dB] | | Phase Balance (Relative to 90°) Deg | | Power Handing Watts |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Min. | Max. | Typ. | Min. | Typ. | Min. | Typ. | Typ. | Max. | Typ. | Max. | Typ. | Max | Max. |
| DB0603N2140ANTR | 2040 | 2240 | 50 | 15 | 26 | 15 | 23 | 0.30 | 0.40 | 0.50 | 0.80 | 2 | 3 | 10 |
| DB0603N2400ANTR | 2300 | 2500 | 50 | 12 | 17 | 15 | 23 | 0.25 | 0.35 | 0.30 | 0.80 | 2 | 3 | 10 |
| DB0603N2600ANTR | 2400 | 2800 | 50 | 12 | 17 | 15 | 23 | 0.25 | 0.35 | 0.30 | 0.80 | 2 | 3 | 10 |
| DB0603N3000ANTR | 2850 | 3150 | 50 | 12 | 15 | 15 | 26 | 0.20 | 0.30 | 0.30 | 0.80 | 2 | 3 | 10 |
| DB0603N3500ANTR | 3300 | 3700 | 50 | 12 | 15 | 15 | 26 | 0.20 | 0.30 | 0.30 | 0.80 | 2 | 3 | 10 |
| DB0603N4600ANTR | 4200 | 5000 | 50 | 12 | 16 | 12 | 15 | 0.50 | 0.70 | 0.40 | 1.00 | 1.5 | 3 | 10 |
| DB0603N5500ANTR | 5100 | 5900 | 50 | 12 | 16 | 10 | 14 | 0.60 | 0.80 | 0.80 | 1.50 | 1 | 3 | 10 |
| DB0603N5800ANTR | 5600 | 6000 | 50 | 12 | 16 | 12 | 17 | 0.40 | 0.90 | 0.30 | 0.90 | 2 | 3 | 10 |

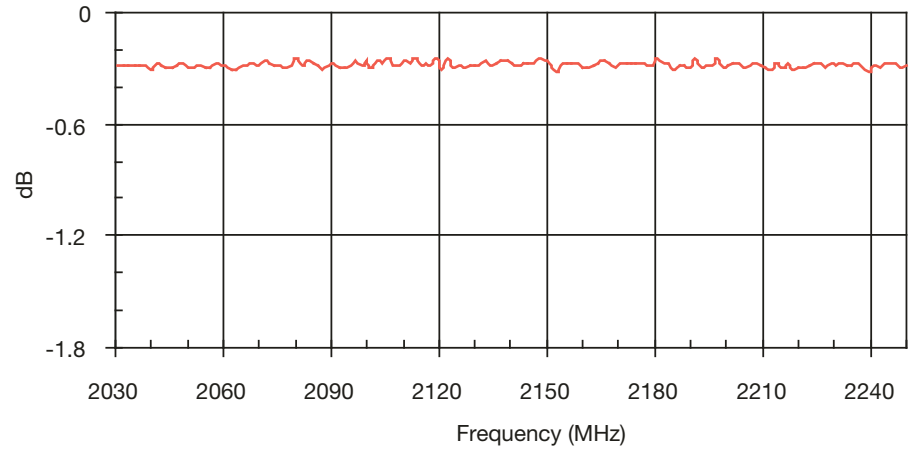
NOTE: Additional Frequencies Available Upon Request

### 2040MHz to 2240MHz DB0603N2140ANTR

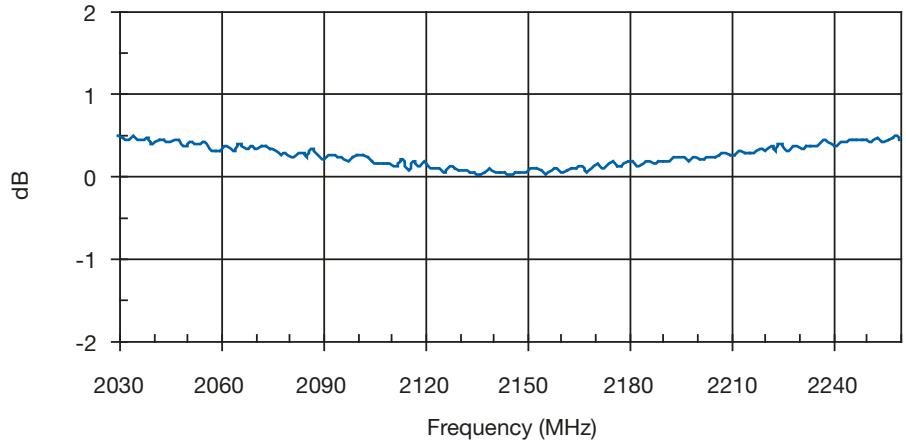
**Return Loss - Input**



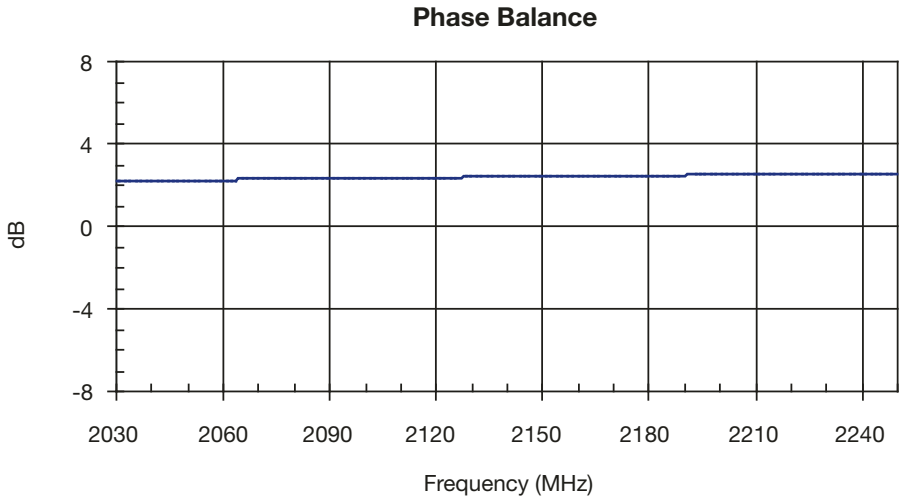

**Insertion Loss**

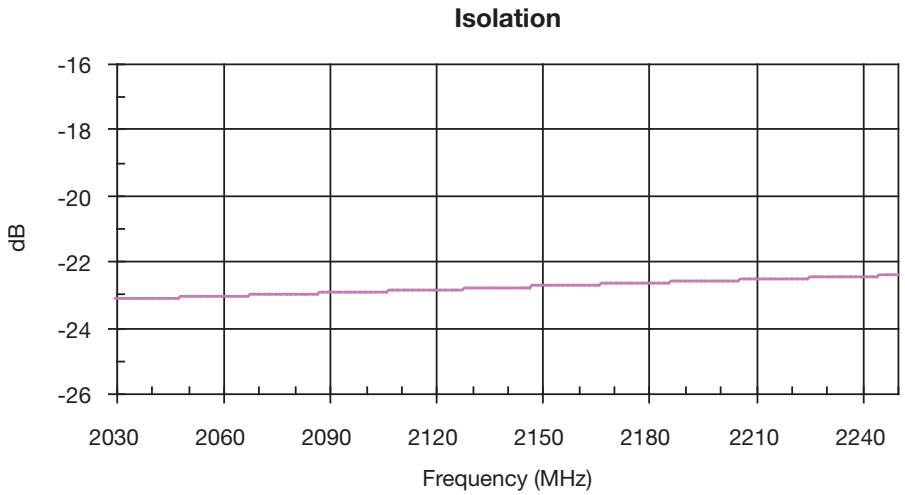



**Amplitude Balance**



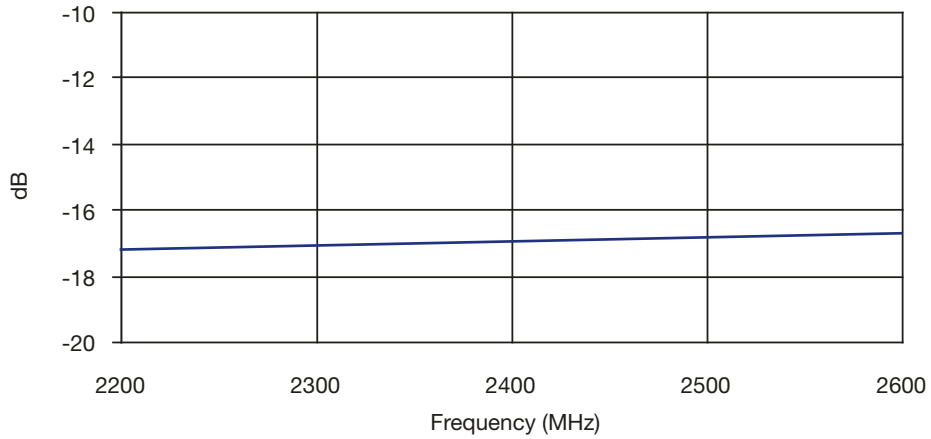
## 2040MHz to 2240MHz DB0603N2140ANTR



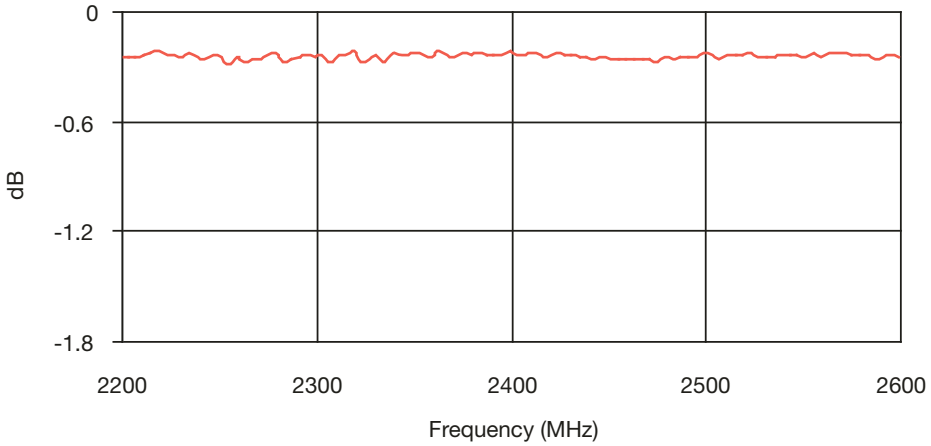



## 2200MHz to 2600MHz DB0603N2400ANTR

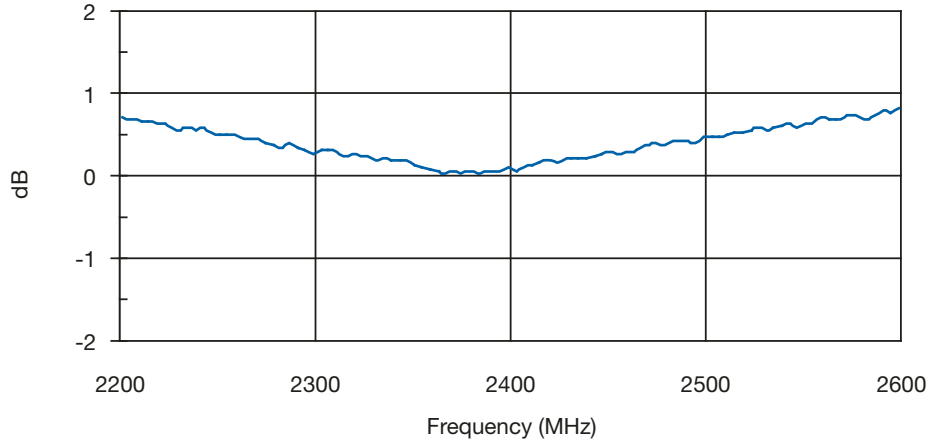
**Return Loss - Input**




**Insertion Loss**

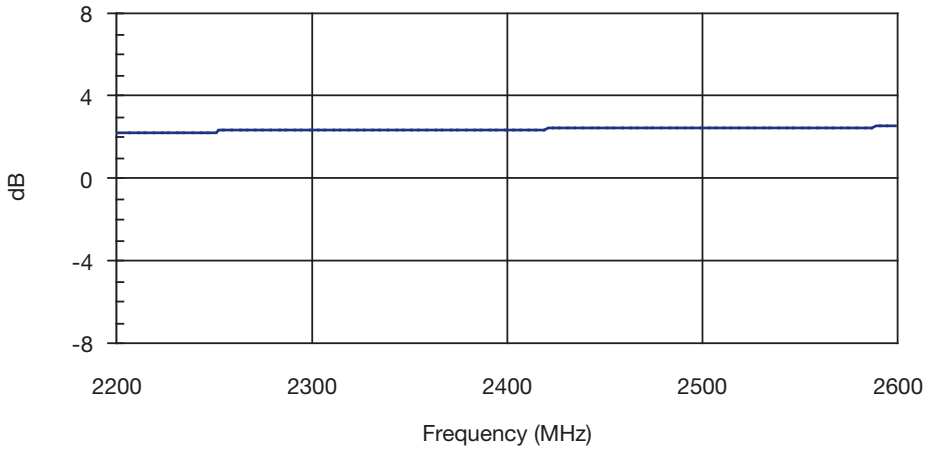



**Amplitude Balance**

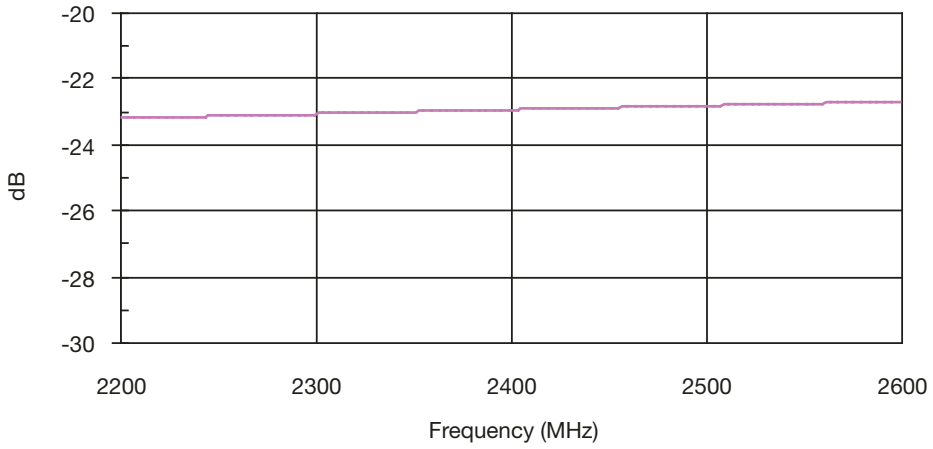


## 2200MHz to 2600MHz DB0603N2400ANTR

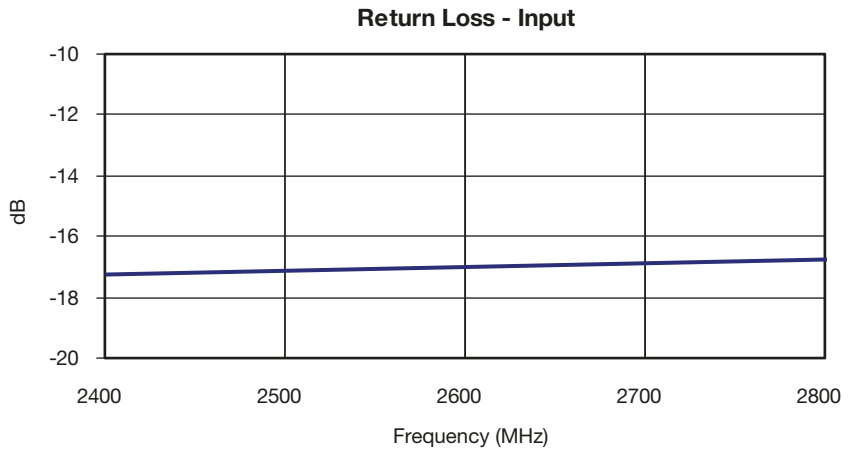
**Phase Balance**

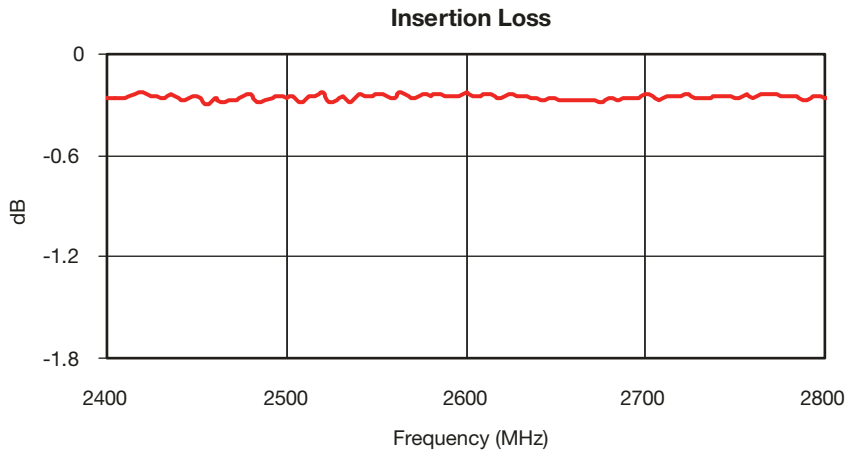


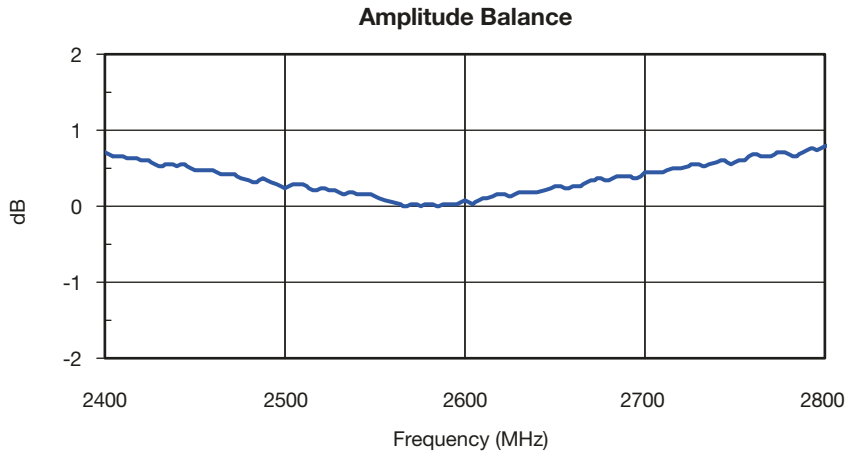

**Isolation**



## 2400MHz TO 2800MHz DB0603N2600ANTR

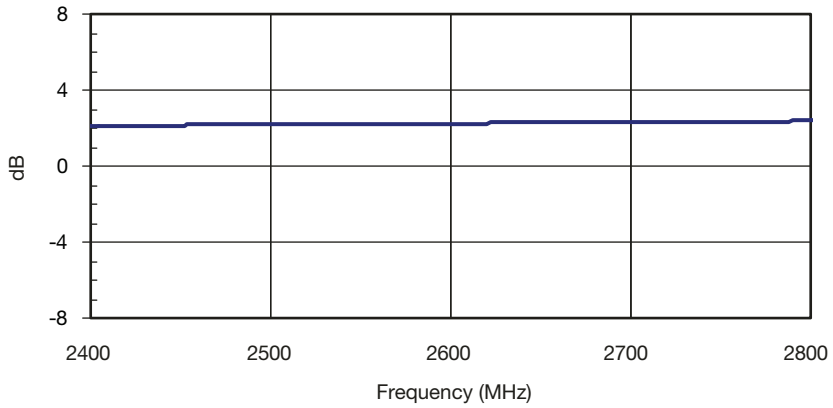


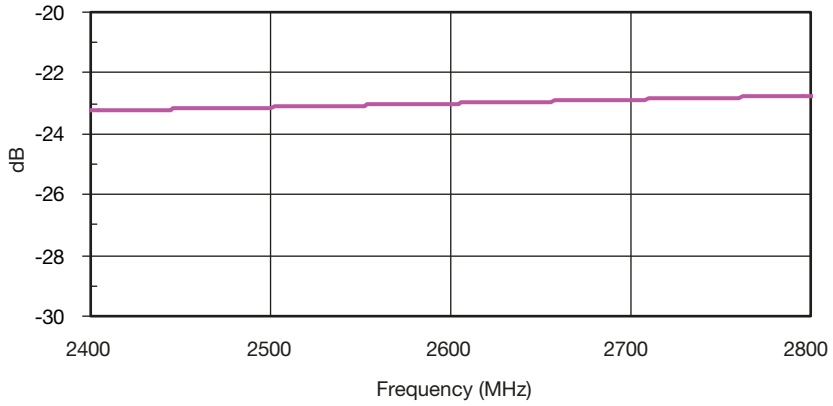



## 2400MHz TO 2800MHz DB0603N2600ANTR

**Phase Balance**

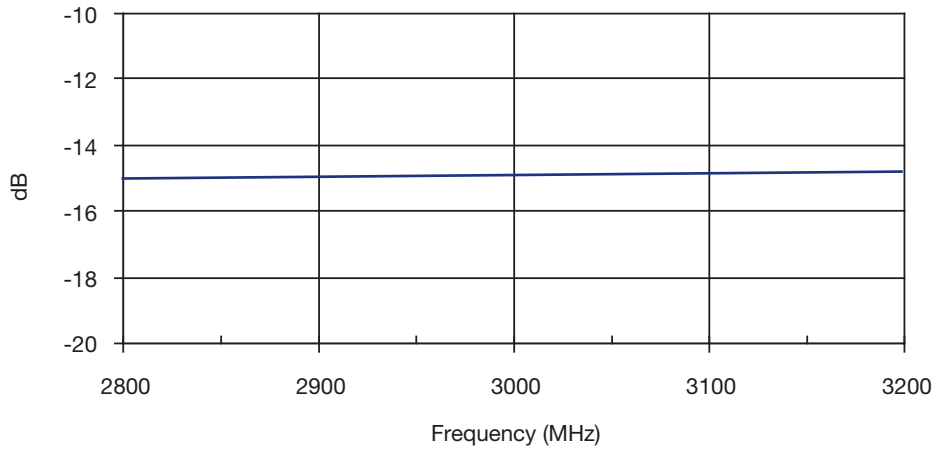



**Isolation**

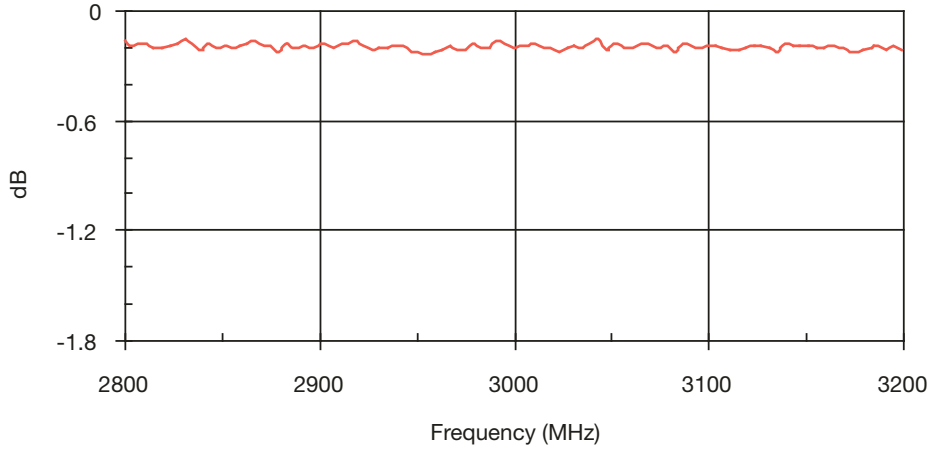


### 2850MHz to 3150MHz DB0603N3000ANTR

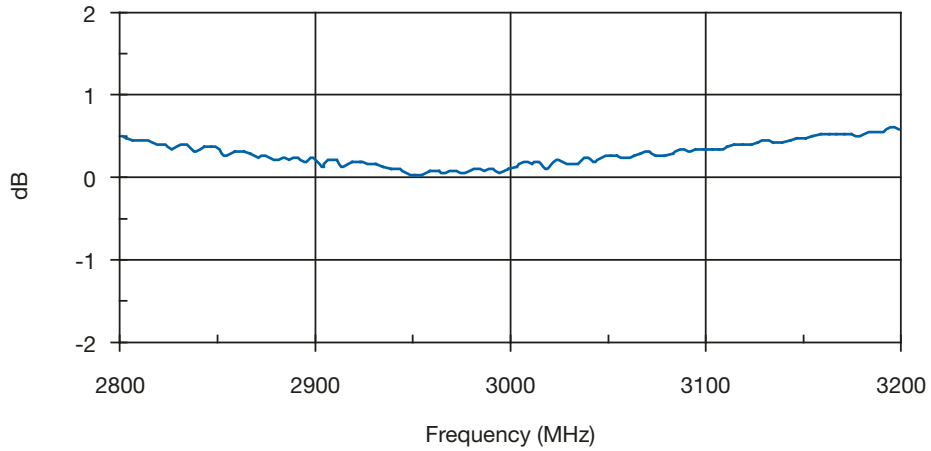
**Return Loss - Input**




**Insertion Loss**

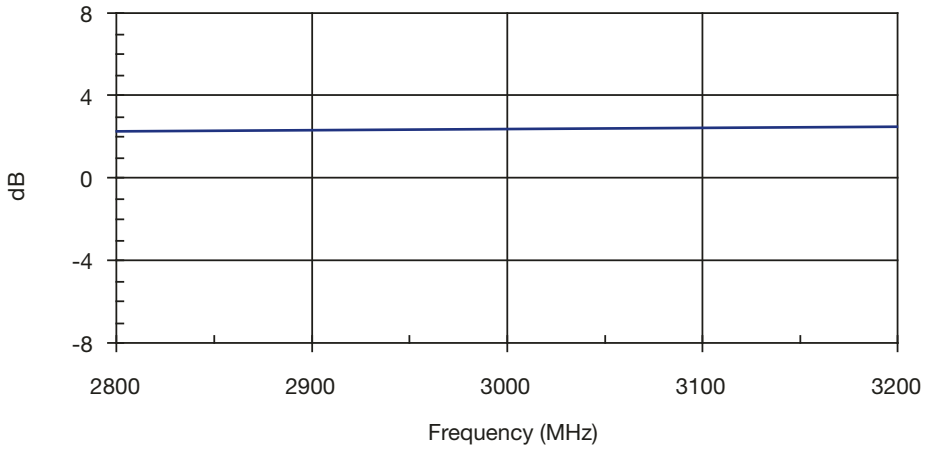



**Amplitude Balance**

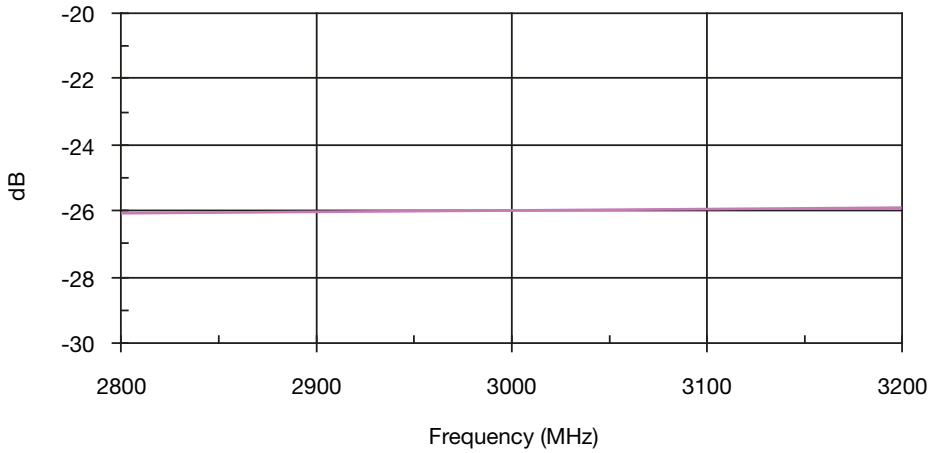


## 2850MHz to 3150MHz DB0603N3000ANTR

**Phase Balance**

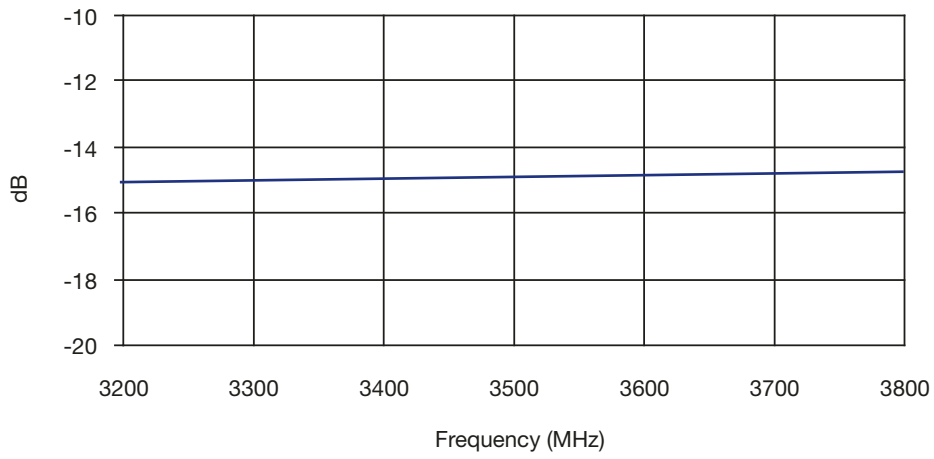



**Isolation**

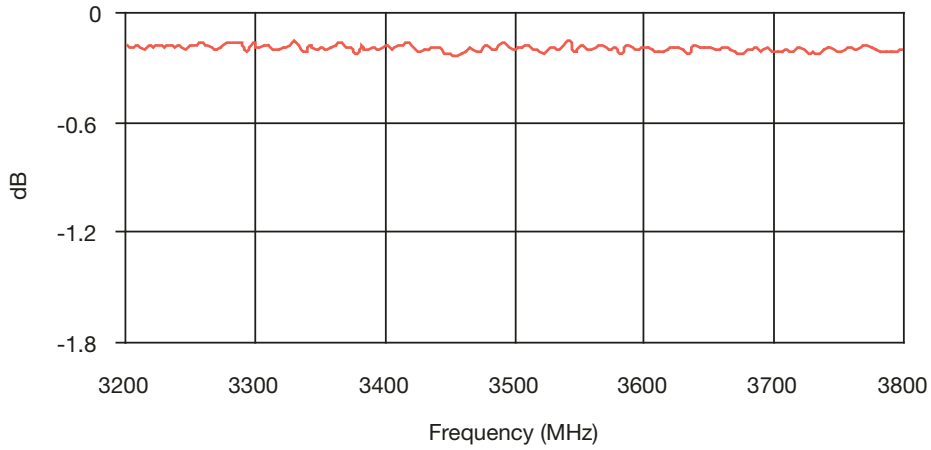


## 3200MHz to 3800MHz DB0603N3500ANTR

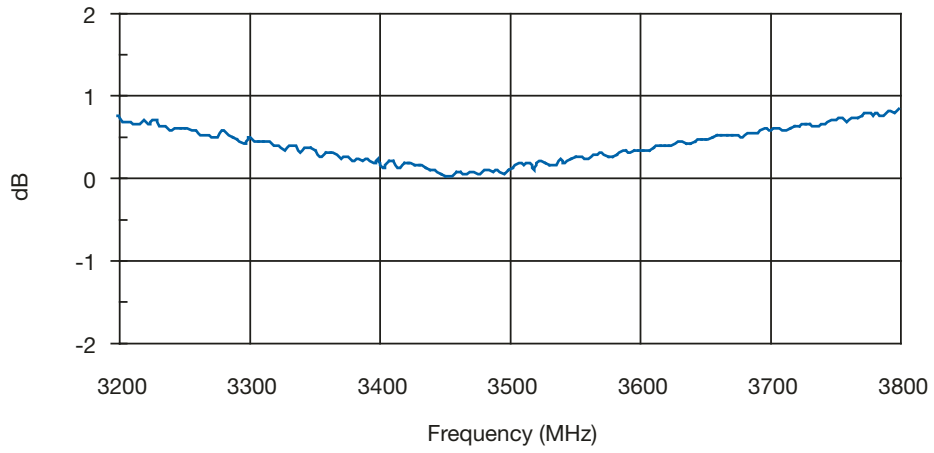
**Return Loss - Input**




**Insertion Loss**

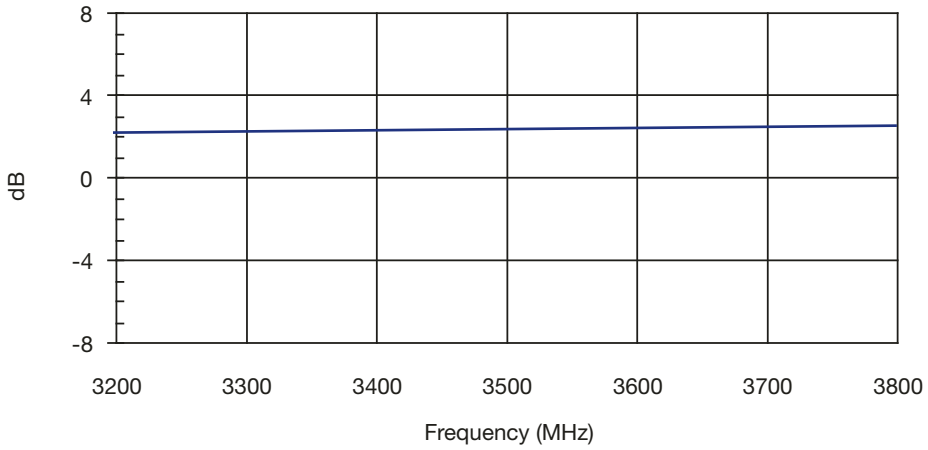



**Amplitude Balance**

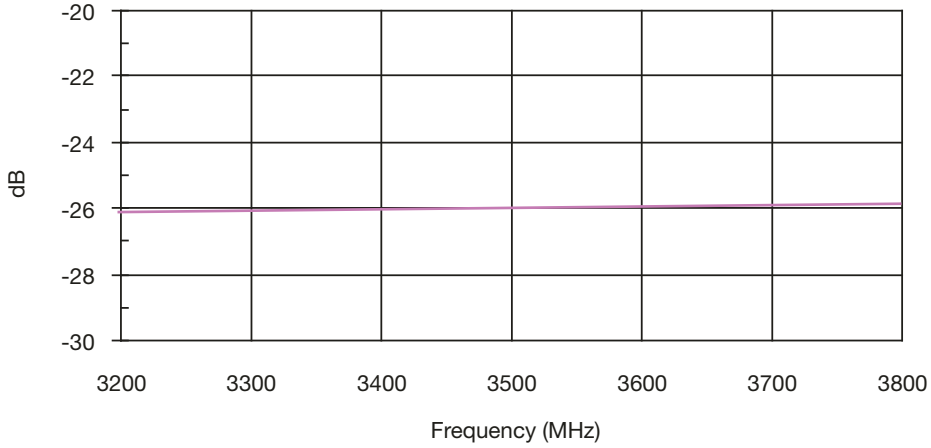


## 3200MHz to 3800MHz DB0603N3500ANTR

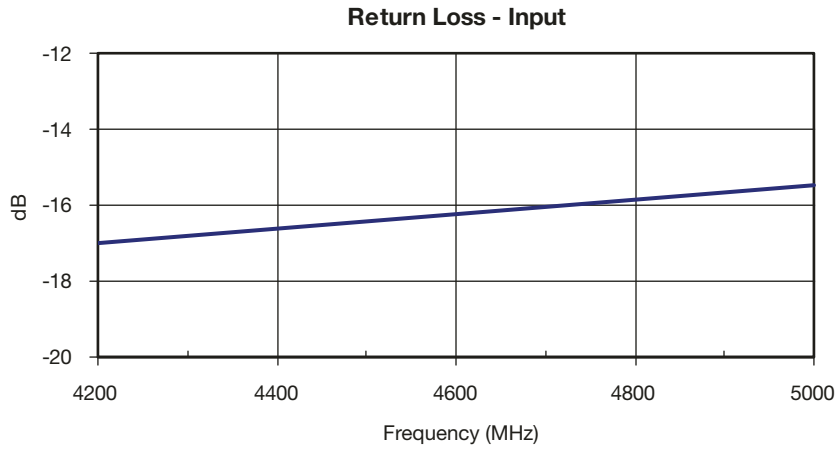
**Phase Balance**

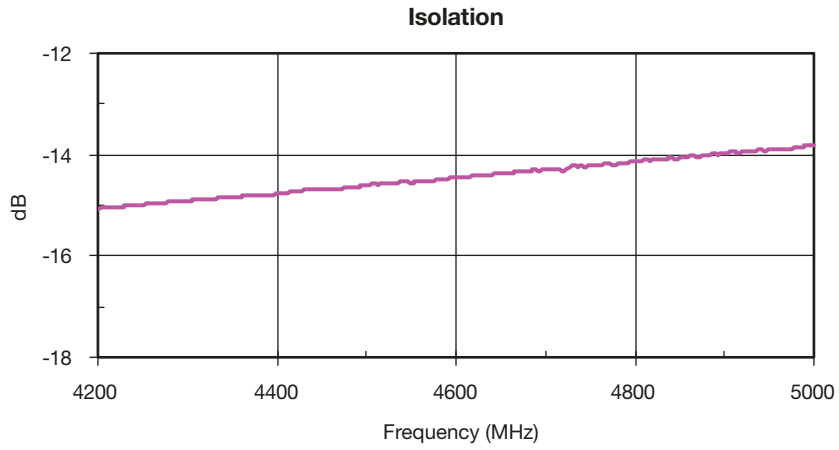


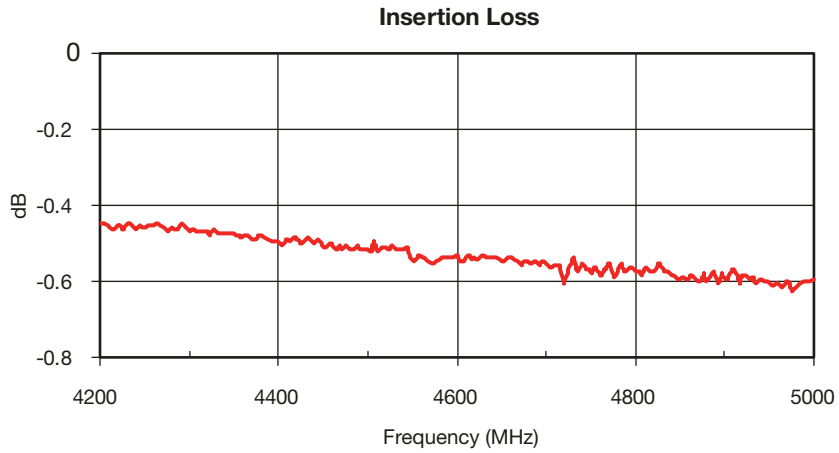

**Isolation**



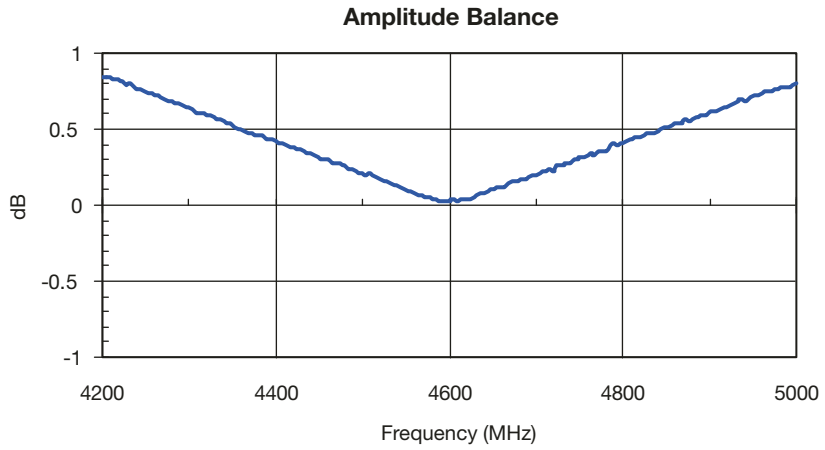
## 4200MHz TO 5000MHz DB0603N4600ANTR

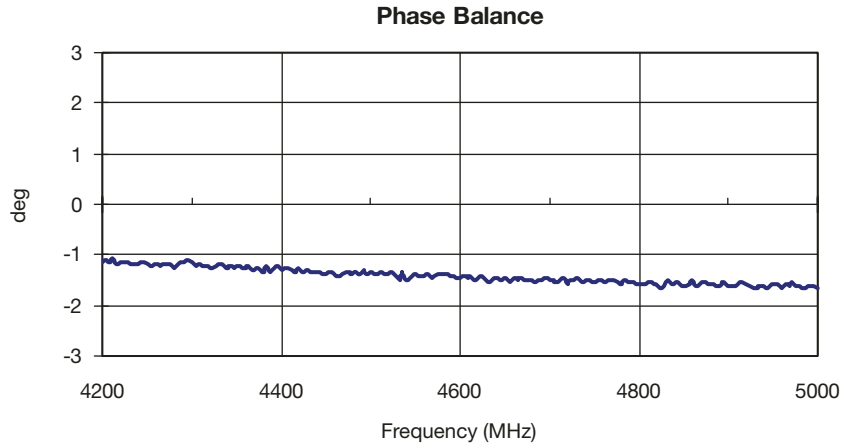


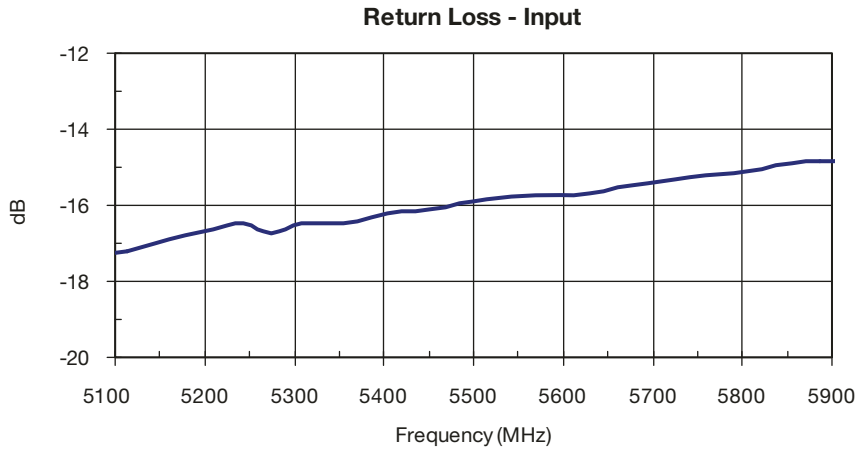



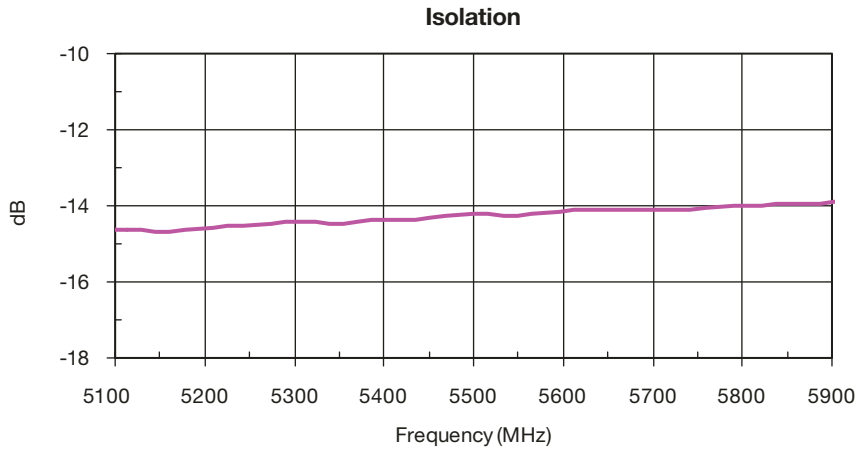
## 4200MHz TO 5000MHz DB0603N4600ANTR

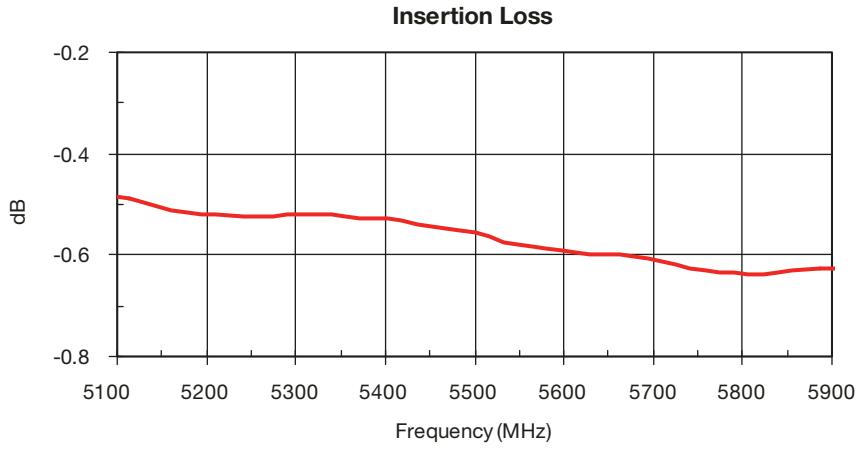


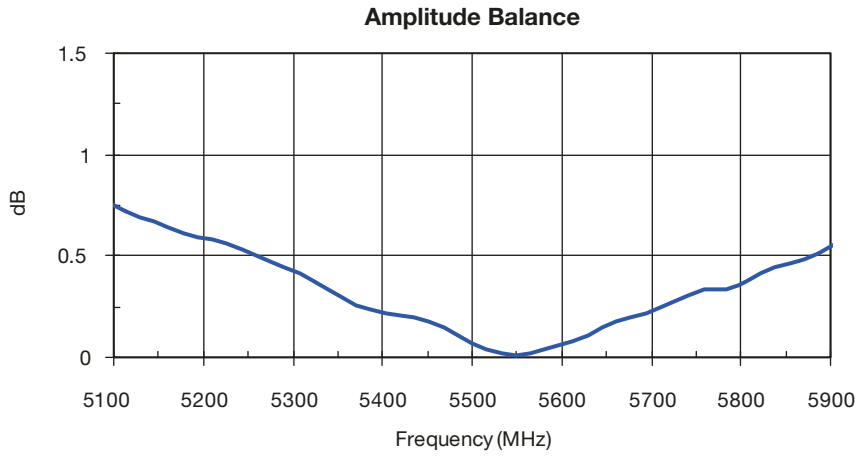
## 5100MHz TO 5900MHz DB0603N5500ANTR

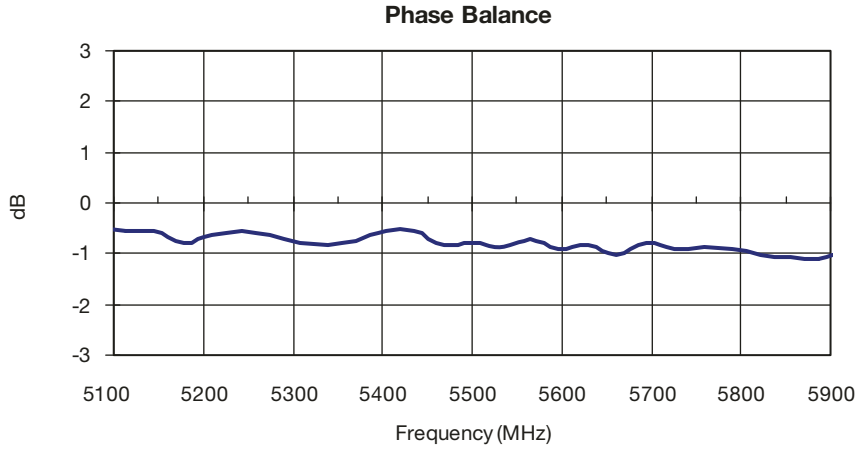


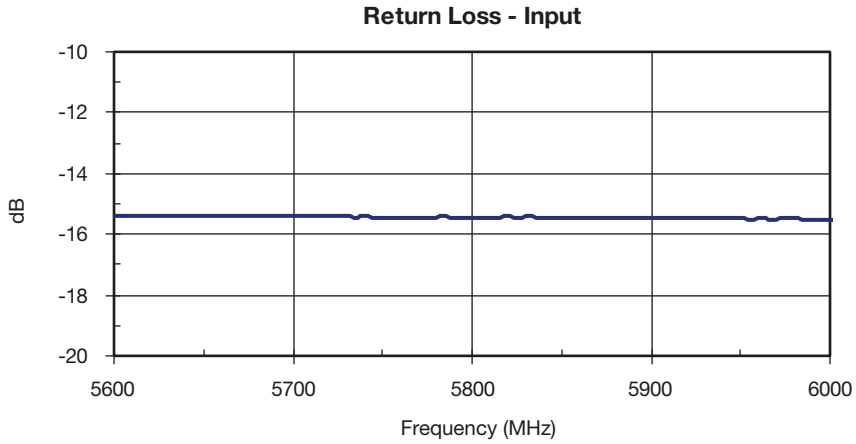



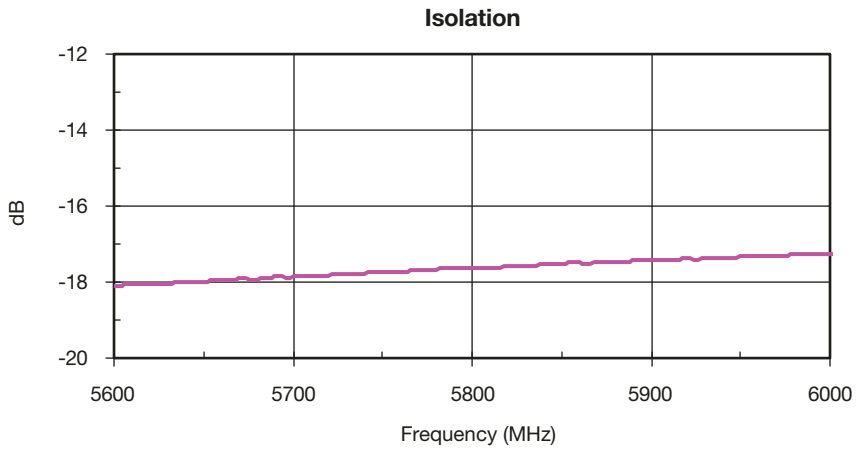
## 5100MHz TO 5900MHz DB0603N5500ANTR

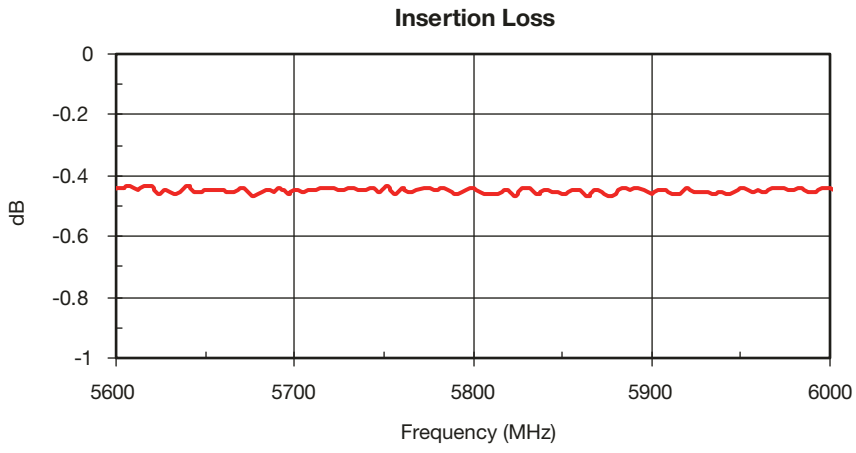


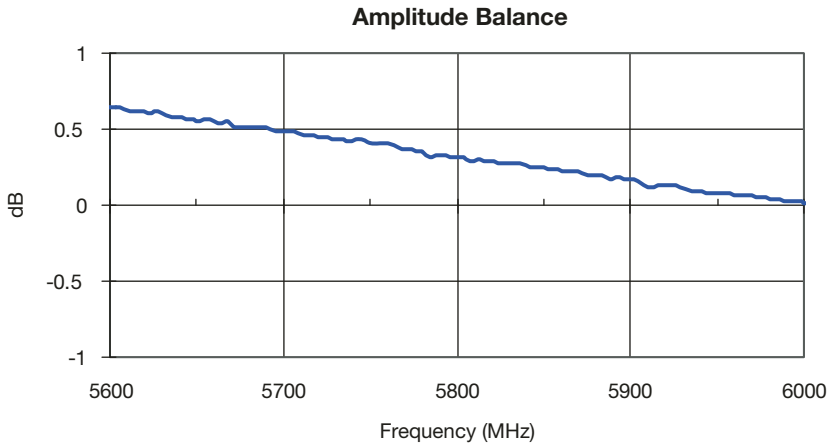
## 5600MHz TO 6000MHz DB0603N5800ANTR

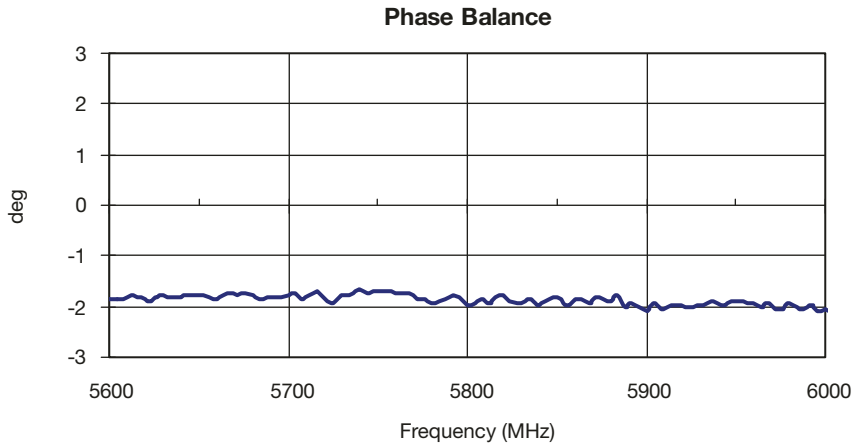


## 5600MHz TO 6000MHz DB0603N5800ANTR



Общество с ограниченной ответственностью «МосЧип» ИНН 7719860671 / КПП 771901001
Адрес: 105318, г.Москва, ул.Щербаковская д.3, офис 1107

**Данный компонент на территории Российской Федерации**

**Вы можете приобрести в компании MosChip.**

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

http://moschip.ru/get-element

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

**Офис по работе с юридическими лицами:**

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Факс: +7 495 668-12-70 (доб.304)

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