DC Blocks

- Inside & outside versions available.
- ***Express*** shipment available on select models.
- Low SWR - Maximum SWR remains low through full frequency and power range.
- Rugged Construction - Aeroflex / Weinschel semi-precision Type N & SMA stainless steel connectors.
- Broadband Designs to 26 GHz.
- Planar Bulkhead Models with inside DC Block.

General Information

In this section of the catalog, each product is outlined utilizing individual data sheets containing product features, specifications, and outline drawings. These data sheets are preceded by a quick reference guide to help you select the product(s) that fits your needs. The page number for each product data sheet is given in the quick reference guide.

NOTE: ***EXPRESS*** Shipment available via **www.argosysales.com** or 800-542-4457. Check with distributor for current products and stocking quantities.

dc Blocks...dc to 18.0 GHz

Model Number	Type	Connector Type	Frequency Range (GHz)	Insertion Loss Maximum (dB)	SWR (Maximum)	Page No.	
☆ 7003	Inside	N	9 kHz to 18.6	0.9	1.35-1.50*	240	
7006 ☆ 7006-1	Inside	SMA	9 kHz to 26.5 9 kHz to 20	0.8 0.8	1.35-1.70* 1.30-1.50*	241 242	
7010-1	Inside	SMA (f) - Planar Interface	dc - 26.5	0.6-0.9	1.20-1.25	243	
7010-2	Inside	SMA (m) - Planar Interface	dc - 26.5	0.6-0.9	1.20-1.25	243	
☆ 7012	Inside/ Outside	SMA	0.5 to 8.6	0.4	1.25	244	

* VARIES WITH FREQUENCY.

☆ *EXPRESS* Shipment available via **www.argosysales.com** or 800-542-4457.
Note: Other models may also be available from Express delivery.

Revision Date: 3/10/09

Model 7003
Inside DC Block

9 kHz to 18.0 GHz

Type N Connectors

RoHS

Features

Aeroflex / Weinschel Inside dc Block contains capacitance in-series with the center conductor to prevent the flow of dc current, while permitting RF power to flow without interruption.

- **Low SWR -** Maximum SWR remains low through full frequency and power range.
- **Rugged Construction -** Aeroflex / Weinschel semi-precision Type N stainless steel connectors. Molded captive inner contact/bead assembly provides controlled and stable interface dimensions.
- **Model 7003 useable to 22 GHz.**

Specifications

NOMINAL IMPEDANCE: 50 Ω

FREQUENCY RANGE: 9 kHz to 18.6 GHz

MAXIMUM SWR:

Frequency (GHz)	SWR*
9 - 10 kHz	1.50
11 - 20 kHz	1.35
20 kHz - 18	1.35

* Source & load SWR of test system is <1.2.

INSERTION LOSS: 0.9 dB maximum

VOLTAGE RATING: +50 Vdc maximum

POWER RATING: 2 Watts (average), 100 Watts (peak)

TEMPERATURE RANGE: -20 °C to +80 °C (operating)
-20 °C to +100 °C (storage)

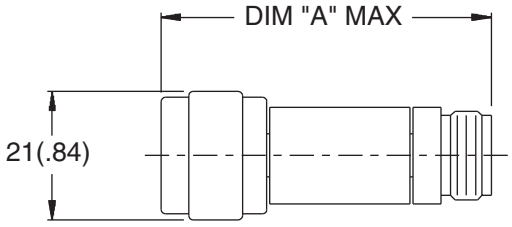
TEST DATA: Test data is available at additional cost.

CONNECTORS: Type N connectors per MIL-STD-348 interface dimensions - mate nondestructively with MIL-C-39012 connectors. Standard unit has one male and one female connector. Add Prefix M for double male and F for double female connectors.

CONSTRUCTION: Stainless steel body and connectors; gold plated beryllium copper contacts

WEIGHT: Net: 67 g (2.4 oz)

PHYSICAL DIMENSIONS:

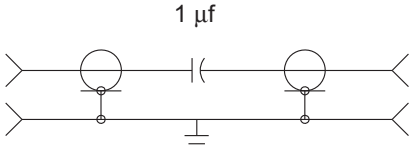


Model #	DIM A	Connector Type
7003	54.61 (2.15)	male-female
F7003	50.80 (2.00)	female-female
M7003	58.67 (2.31)	male-male

NOTE:

1. All dimensions are given in mm (inches) and are maximum, unless otherwise specified.
2. Unit available with RoHS compliant materials, specify when ordering.

SCHEMATIC DIAGRAM:



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Revision Date: 3/10/09

Model 7006
Inside DC Block

9 kHz to 26.5 GHz

Rugged SMA Connectors

Features

Aeroflex / Weinschel Inside dc Block contains capacitance in-series with the center conductor to prevent the flow of dc current, while permitting RF power to flow without interruption.

- **Low SWR -** Maximum SWR remains low through full frequency and power range.
- **Rugged Construction -** Aeroflex / Weinschel semi-precision Type N and SMA stainless steel connectors. Molded captive inner contact/bead assembly provides controlled and stable interface dimensions.

Specifications

NOMINAL IMPEDANCE: 50 Ω

FREQUENCY RANGE: 9 kHz to 26.5 GHz

MAXIMUM SWR:

Frequency (GHz)	7006*
9 - 10 kHz	1.45
11 - 20 kHz	1.35
20 kHz - 18	1.35
18 - 26.5	1.70

* Source & load SWR of test system is <1.2.

INSERTION LOSS: 0.8 dB maximum*

VOLTAGE RATING: +50 Vdc maximum

POWER RATING: 2 Watts (average), 100 Watts (peak)

TEMPERATURE RANGE: -20 °C to +80 °C (operating)
-20 °C to +100 °C (storage)

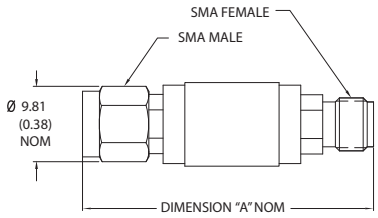
TEST DATA: Test data is available at additional cost.

CONNECTORS: SMA connectors per MIL-STD-348 interface dimensions - mate nondestructively with MIL-C-39012 connectors. Standard unit has one male and one female connector. Add Prefix M for double male and F for double female connectors.

CONSTRUCTION: Stainless steel body and connectors; gold plated beryllium copper contacts

WEIGHT: Model 7003: Net: 67 g (2.4 oz)
Model 7006, 7006-1: Net:: 4 g (0.14 oz)

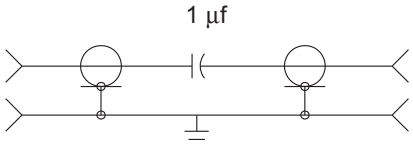
PHYSICAL DIMENSIONS:



Model #	DIM A	Connector Type
7006	36.32 (1.43)	male-female
F7006	33.53 (1.32)	female-female
M7006	35.05 (1.38)	male-male

NOTE: All dimensions are given in mm (inches) and are maximum, unless otherwise specified.

SCHEMATIC DIAGRAM:



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Revision Date: 3/10/09

Model 7006-1
Inside DC Block

9 kHz to 20.0 GHz

Rugged SMA Connectors

RoHS

Features

Aeroflex / Weinschel Inside dc Block contains capacitance in-series with the center conductor to prevent the flow of dc current, while permitting RF power to flow without interruption.

- **Low SWR -** Maximum SWR remains low through full frequency and power range.
- **Rugged Construction -** Aeroflex / Weinschel semi-precision SMA stainless steel connectors. Molded captive inner contact/bead assembly provides controlled and stable interface dimensions.

Specifications

NOMINAL IMPEDANCE: 50 Ω

FREQUENCY RANGE: 9 kHz to 20 GHz

MAXIMUM SWR:	
Frequency (GHz)	7006-1
9 - 10 kHz	1.50
11 - 20 kHz	1.50
20 kHz - 18	1.30
18 - 20.0	1.20

* Source & load SWR of test system is <1.2.

INSERTION LOSS: 0.8 dB maximum*

VOLTAGE RATING: +50 Vdc maximum

POWER RATING: 2 Watts (average), 100 Watts (peak)

TEMPERATURE RANGE: -20 °C to +80 °C (operating)
-20 °C to +100 °C (storage)

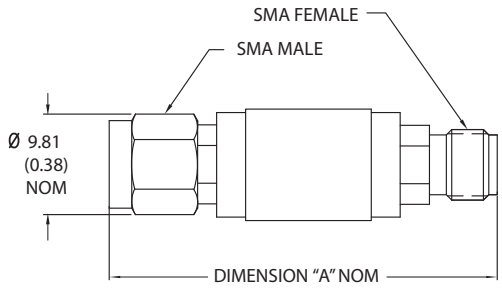
TEST DATA: Test data is available at additional cost.

CONNECTORS: SMA connectors per MIL-STD-348 interface dimensions - mate nondestructively with MIL-C-39012 connectors. Standard unit has one male and one female connector. Add Prefix M for double male and F for double female connectors.

CONSTRUCTION: Stainless steel body and connectors; gold plated beryllium copper contacts

WEIGHT: Net:: 4 g (0.14 oz)

PHYSICAL DIMENSIONS:

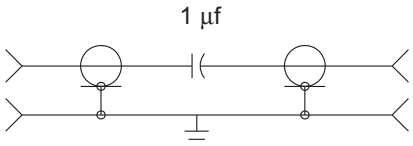


Model #	DIM A	Connector Type
7006-1	37.34 (1.47)	male-female
F7006-1	34.54 (1.36)	female-female
M7006-1	36.07 (1.42)	male-male

NOTE:

1. All dimensions are given in mm (inches) and are maximum, unless otherwise specified.
2. Unit available with RoHS compliant materials, specify when ordering.

SCHEMATIC DIAGRAM:



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Revision Date: 3/10/09

Model 7010 — 10 MHz to 26.5 GHz

PLANAR BULKHEAD with DC Block

2.92mm Connectors to Planar Interface

Features

- **Usable to 40 GHz.**
- **Eliminates the requirement for a separate dc Block to protect instrument front ends.**
- **Offers the user multiple connector options and quick replacement of damaged connectors.**
- **Provides all the features and versatility of the PLANAR CROWN® Connector System.**

Specifications

NOMINAL IMPEDANCE: 50 Ω

FREQUENCY RANGE: 10 MHz to 26.5 GHz

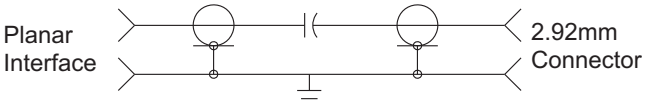
MAXIMUM SWR:	
Frequency (GHz)	SWR
10 MHz - 18	1.20
18 - 26.5	1.25

INSERTION LOSS & REPEATABILITY (dB):	
Frequency (GHz)	Loss
10 MHz - 18	0.6
18 - 26.5	0.9

Note: SWR and Insertion Loss specifications are based on a mated pair of Models 7010-X and 7005A-XX PLANAR CROWN® connector types.

DC BLOCK CAPACITOR RATING: 1,700 pf minimum; + 50 Vdc working voltage

SCHEMATIC DIAGRAM:



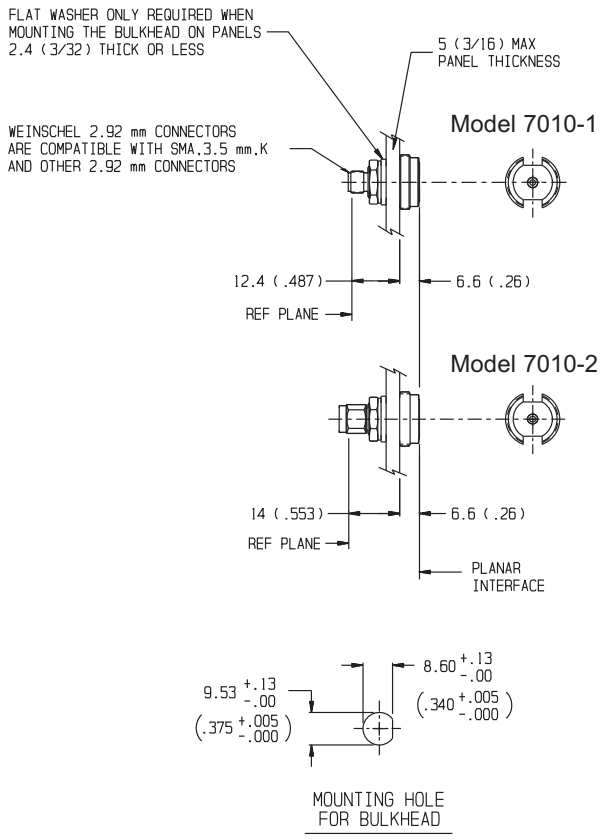
TEMPERATURE RANGE: 0 °C to +60 °C (operating)-40 °C to +70 °C (non-operating)

CONNECTORS: Primary connector is 2.92 mm female or male connector, with a PLANAR INTERFACE on opposite end. Contact Pin Recession of 2.92mm is 0 to 0.076 mm (0 to 0.003 in) for reference plane. Add -1 for female 2.92 mm connector or -2 for 2.92mm male connector

CONSTRUCTION: Passivated Stainless steel body and connectors; gold plated beryllium copper contacts

WEIGHT: Net: 20 g (0.7 oz)

PHYSICAL DIMENSIONS:



NOTE: All dimensions are given in mm (inches) and are maximum, unless otherwise specified.

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Revision Date: 3/10/09

Model 7012
Inside/Outside DC Block

Rugged SMA Connectors

500 MHz to 8.6 GHz

RoHS

Features

Aeroflex / Weinschel Inside/Outside dc Block contains capacitance in-series with the center conductor to prevent the flow of dc current, while permitting RF power to flow without interruption.

- **Low SWR -** Maximum SWR remains low through full frequency and power range.
- **Rugged Construction -** Aeroflex / Weinschel semi-precision SMA stainless steel connectors.

Specifications

NOMINAL IMPEDANCE: 50 Ω

FREQUENCY RANGE: 500 MHz to 8.6 GHz

MAXIMUM SWR:	
Frequency (GHz)	SWR
500 MHz - 8.6 GHz	1.25

INSERTION LOSS (dB maximum):	
Frequency (GHz)	Loss
500 MHz - 8.6 GHz	0.4

BREAKDOWN VOLTAGE: + 200 Vdc between any of the four connectors

DC RESISTANCE: 20 MΩ minimum between any four connectors

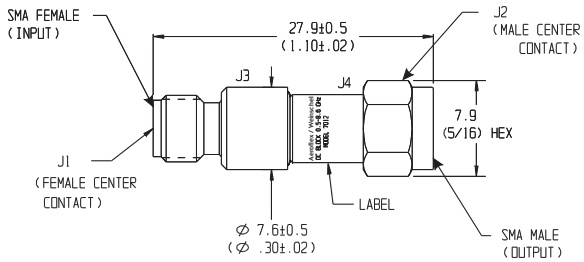
POWER RATING: 10 Watts peak or CW

CONNECTORS: SMA connectors per MIL-STD-348 interface dimensions - mate nondestructively with MIL-C-39012 connectors. Standard unit has one male and one female connector.

CONSTRUCTION: Stainless steel body and connectors; gold plated beryllium copper contacts

WEIGHT: Net: 4.6 g (0.16 oz)

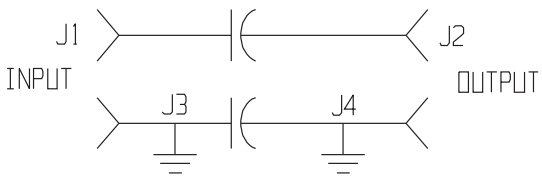
PHYSICAL DIMENSIONS:



NOTE:

1. All dimensions are given in mm (inches) and are maximum, unless otherwise specified.
2. Unit available with RoHS compliant materials, specify when ordering.

SCHEMATIC DIAGRAM:



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