AEROFLEX WEINSCHEL

Model 4205
Digital Attenuator
TTL & USB Control, SMA Connectors

0.2 to 6 GHz

NEW

RoHS

Features

- **Ideal for Automated Test Equipment (ATE), WiMAX, 3G Fading Simulators, Engineering/Production Test Lab environments**
- **Excellent Repeatability & Performance**
- **Custom Configurations Available Upon Request**
- **Ruggedized Construction**

Description

Aeroflex / Weinschel's new line of MMIC Digital Attenuator operates over the 0.2 to 6 GHz frequency range and is in a variety of attenuation ranges. These unit can be controled using either standand TTL or USB interfaces.

Specifications

NOMINAL IMPEDANCE: 50 Ω

FREQUENCY RANGE: 0.2 to 6.0 GHz

CELL CONFIGURATIONS:

Model Number	Attenuation Range/Steps (dB)	Attenuation Increments (dB)
4205-31.5	0 -31.5 / 0.5	0.5, 1, 2, 4, 8, 16
4205-63.5	0-63.5 / 0.5	0.5, 1, 2, 4, 8, 16, 32
4205-95.5	0-95.5 / 0.5	0.5, 1, 2, 4, 8, 16, 32, 32

ATTENUATION ACCURACY (dB):

dB range	4205-31.5	4205-63.5	4205-95.5
1 to 7 dB 8 to 11 dB 12 to 85 dB 86 to 95 dB	TBD	TBD	± 0.5 ± 1.0 ± 1.25 or 4% ± 5 %

MAXIMUM INSERTION LOSS (dB):

Frequency (GHz)	4205-31.5	4205-63.5	4205-95.5
0.2 - 6.0	TBD	TBD	8.0

MAXIMUM SWR: 2.0:1

POWER RATING: +23 dBm maximum

SWITCHING SPEED: 1 µSec maximum

CONTROL LOGIC: TTL or USB

OPERATING VOLTAGE: +5 V @ 50 mA

TEMPERATURE RANGE: 0°C to + 70°C

TEST DATA: Test data can be provided at additional cost.

CONNECTORS: SMA female connector - mates nondestructively with other SMA connector per MIL-C-39012, 3.5mm and other 2.92mm connector.

CONTROL CONNECTOR: The TTL control connector is an AMP-Latch 10 pin ribbon cable connector mates with AMP P/N 746285-1 (supplied with each unit). The USB is a 5-pin female series B mini socket and mates with most standard USB 5-pin male series B mini plug connectors.

WEIGHT: 83 g (2.92 oz)

Units are supplied with both a built-in TTL and USB 2 interfaces. The unit internal intelligents senses which control configuration is connected to the unit.

5305 Spectrum Drive, Frederick, MD 21703-7362 • TEL: 301-846-9222, 800-638-2048 • Fax: 301-846-9116
web: www.aeroflex.com/weinschel • email: weinschel-sales@aeroflex.com

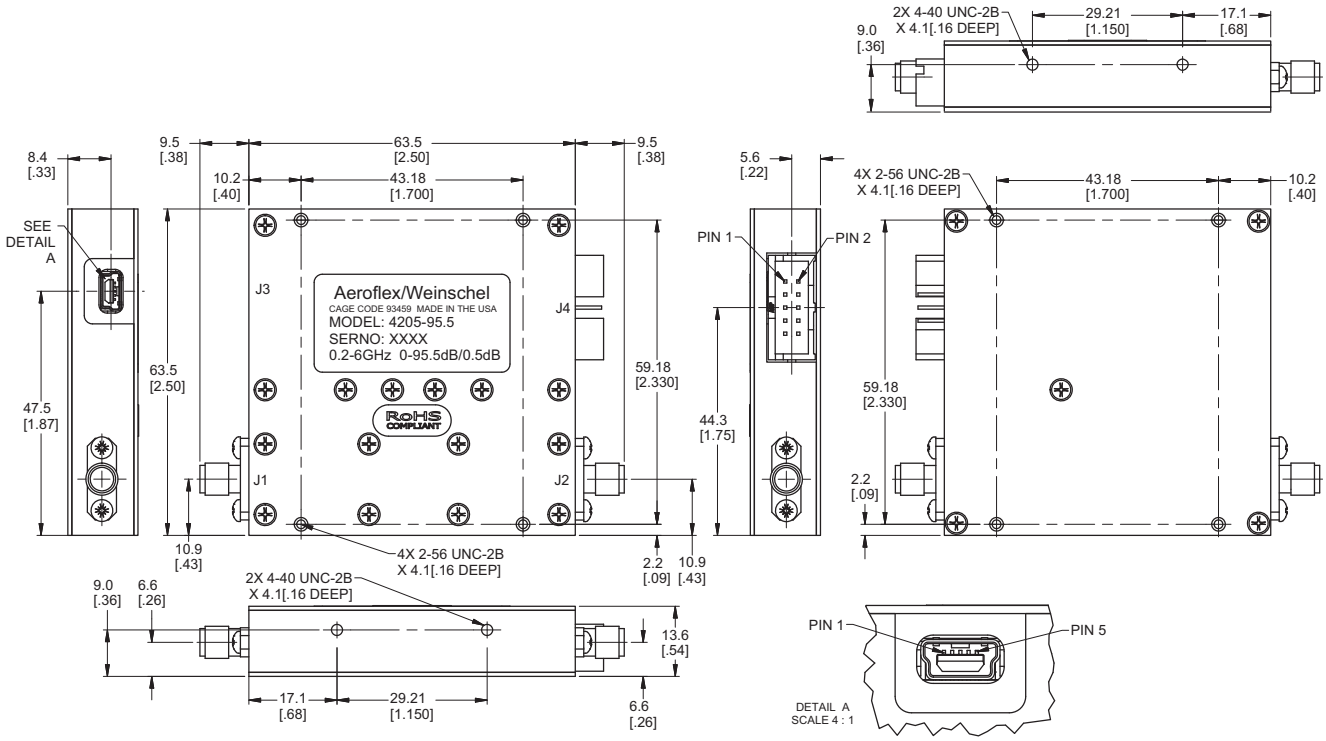
Revision Date: 9/30/2012

CONTROL CONFIGURATION:

USING TTL CONTROL: Units are supplied with a built-in TTL interface. Each unit is supplied with a mating 10 pin connector (Amp 746285-1). Refer to Physical Dimensions for mating connector pin/wiring details. Two wires are specified for supply voltage and ground. The remaining wires will accept TTL control signals to activate or de-activate a particular attenuation cell. A TTL high will energize a cell to the high attenuation state, whereas a TTL low will maintain a cell in its zero attenuation state.

USING USB CONFIGURATION: To use USB interface, your computer must have the capability built-in USB or USB expansion card installed. The computer's operating system must support USB as well. This USB port supports USB 2.0 Full-Speed, which is 12Mb Mbps and is also compatible with 1.0 (1.5 Mbps) and 1.1 (12.5 Mbps). Refer to Physical Dimensions for mating connector pin/wiring details.

PHYSICAL DIMENSIONS:



USB Control Connector J3 Pin Locations:

USB Conn PIN No. (J3)	Function
1	V BUS +5 V
2	Data-
3	Data+
4	ID (NC)
5	GND

TTL Control Connector J4 Pin Locations:

TTL Conn PIN No. (J3)	4205-31.5 dB (Cell)	4205-63.5 dB (Cell)	4205-95.5 dB (Cell)
1	0.5	0.5	0.5
2	1	1	1
3	2	2	2
4	4	4	4
5	8	8	8
6	16	16	16
7	NC	32	32
8	NC	NC	32
9	+5V	+5V	+5V
10	GND	GND	GND

NC = Not Connected.

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

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