

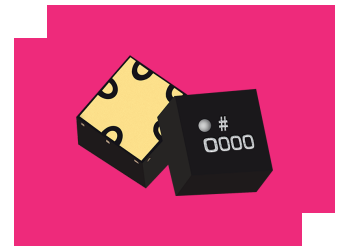
ATN00-0070CSP2

Chip Scale Package MMIC DC - 70 GHz 0dB Attenuator

DEVICE OVERVIEW

General Description

The ATN00-0070CSP1 is a surface mount GaAs MMIC attenuator in a chip scale package (CSP). This attenuator is an ideal solution for attenuating a signal and can be used in a wide range of applications. The ATN00-0070CSP1 features a typical 0.3 dB attenuation with 0.1 dB attenuation flatness and 20 dB return loss across the DC-70 GHz bandwidth. The CSP allows for extreme miniaturization of SMT footprint while providing die-level performance. GaAs MMIC technology provides consistent unit-to-unit performance in a small, low-cost form factor. A 50-ohm match is maintained over the entire operating frequency range.



[Download s-parameters here](#)

Features

- 1.5 x 1.5 mm chip scale package
- 0.3 dB attenuation
- 0.1 dB attenuation flatness
- 20 dB return loss
- 1 W RF Power Handling
- This product embodies Marki Microwave's U.S. Pat. 11,869,858.

Applications

- 5G
- Test Equipment
- Precision Characterization
- Airborne Applications
- Amplitude Matching
- High Channel Count Systems

Functional Block Diagram

N/A

Part Ordering Options

Part Number	Description	Package	Green Status	Product Lifecycle	Export Classification
ATN00-0070CSP2	Chip Scale Package MMIC DC - 70 GHz 0dB Attenuator	CSP2	REACH RoHS	Pre-release	EAR99

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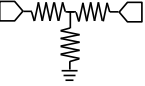
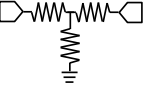
Revision History

Revision Code	Revision Date	Comment
G0	2025-04-02	Pre release

PRE-RELEASE

Port Configuration and Functions

Port Functions

Port	Function	Description	Equivalent Circuit for Package
Ground Paddle	Ground	CSP package ground path is provided through the ground paddle.	
Pin 1	Input/Output	Pin 1 and Pin 2 are DC connected to each other and ground through a T-network of resistors.	
Pin 2	Input/Output	Pin 1 and Pin 2 are DC connected to each other and ground through a T-network of resistors.	

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Specifications

Absolute Maximum Ratings

The Absolute Maximum Ratings indicate limits beyond which damage may occur to the device. If these limits are exceeded, the device may be inoperable or have a reduced lifetime.

Parameter	Maximum Rating	Unit
Maximum Operating Temperature	100	°C
Maximum Storage Temperature	125	°C
Minimum Operating Temperature	-55	°C
Minimum Storage Temperature	-65	°C
RF Power Handling	1	W

Package Information

Parameter	Details	Rating
ESD	250 to < 500 Volts	HBM Class 1A
Dimensions	-	2.50 x 2.50 mm
Moisture Sensitivity Level	-	MSL 1

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Electrical Specifications

The electrical specifications apply at TA=+25°C in a 50Ω system. Typical data shown is for the attenuator in a CSP2 package with a sine wave input applied to port 1.

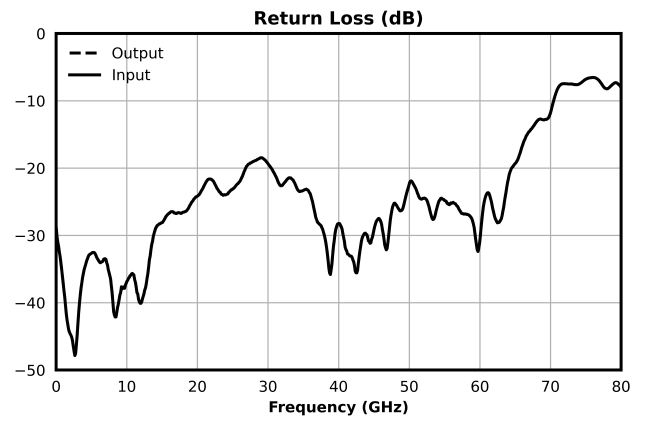
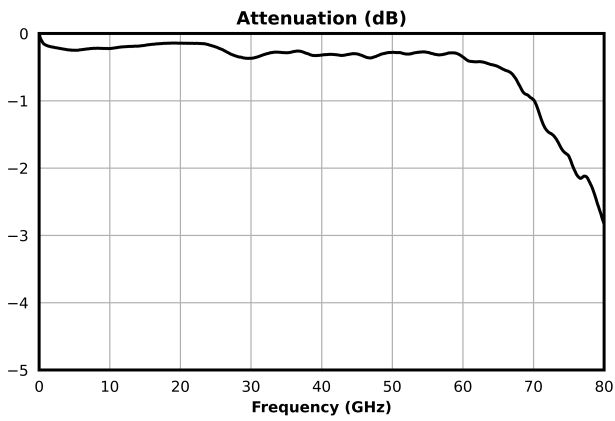
Parameter	Test Conditions	Minimum Frequency (GHz)	Maximum Frequency (GHz)	Min	Typ	Max	Unit
Attenuation	Configuration A, Temp = 25°C	0	70	-	0.3	-	dB
Attenuation Flatness	Configuration A, Temp = 25°C	0	70	-	0.2	-	dB
Return Loss	Configuration A, Temp = 25°C	0	70	-	26	-	dB

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ATN00-0070CSP2

Chip Scale Package MMIC DC - 70 GHz 0dB
Attenuator

Typical Performance Plot



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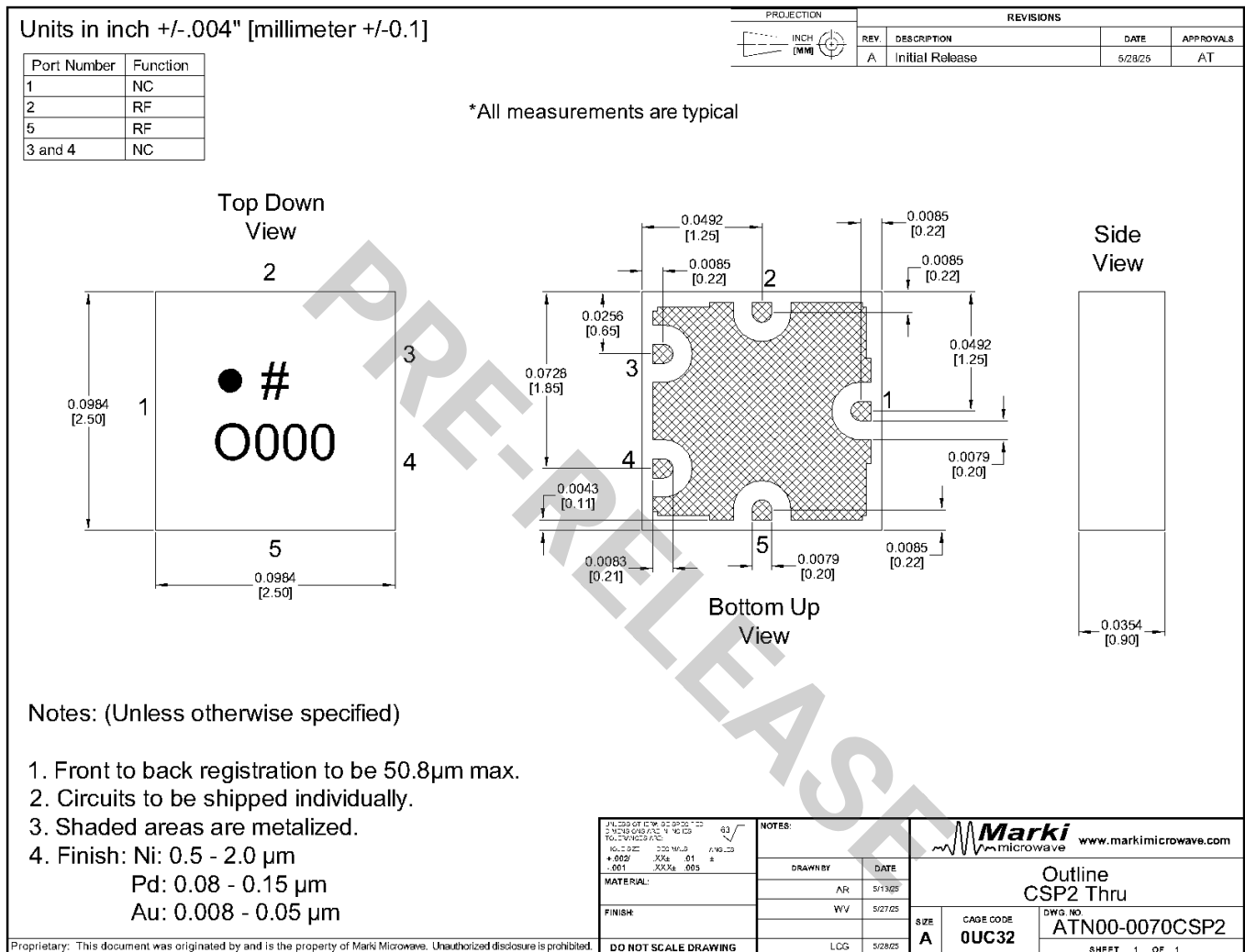
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Chip Scale Package MMIC DC - 70 GHz 0dB Attenuator

Mechanical Data

Outline Drawing

Download : [Outline 2D Drawing](#)



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