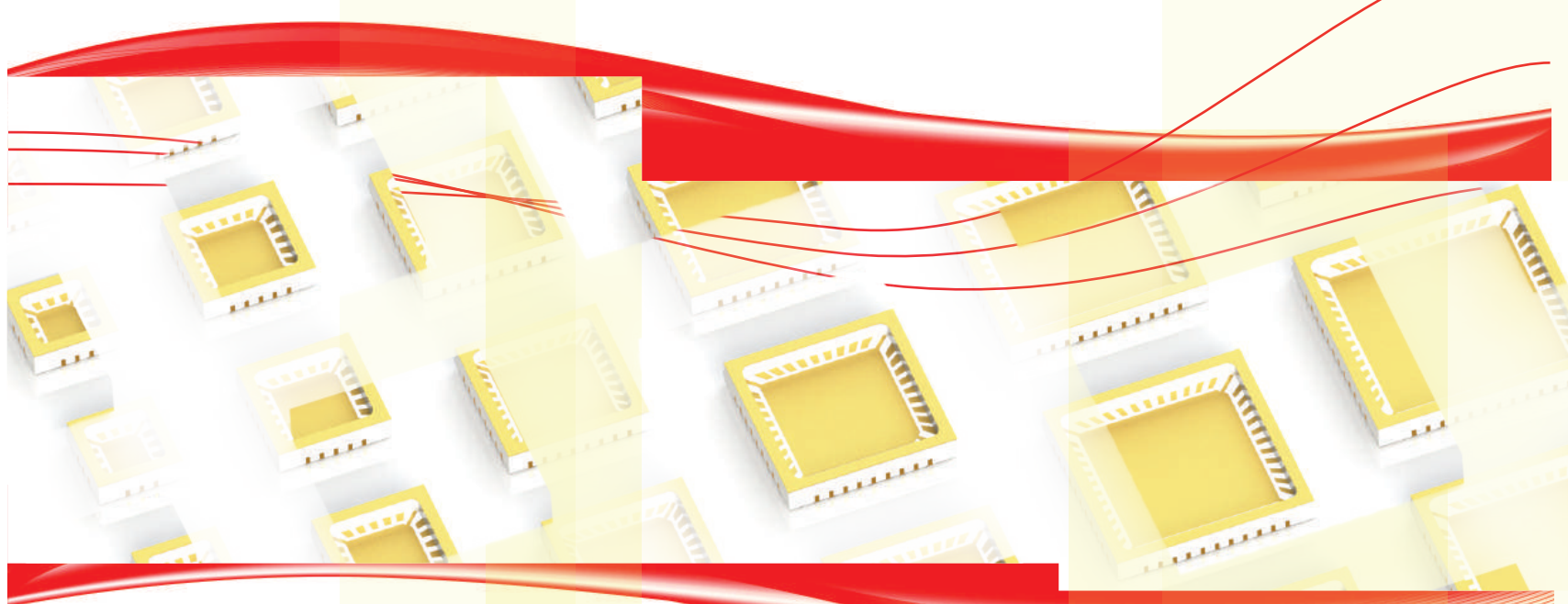


Ceramic **QFN** Family

To 40GHz

HTCC Al₂O₃



Fully Hermetic



ISO CERTIFIED

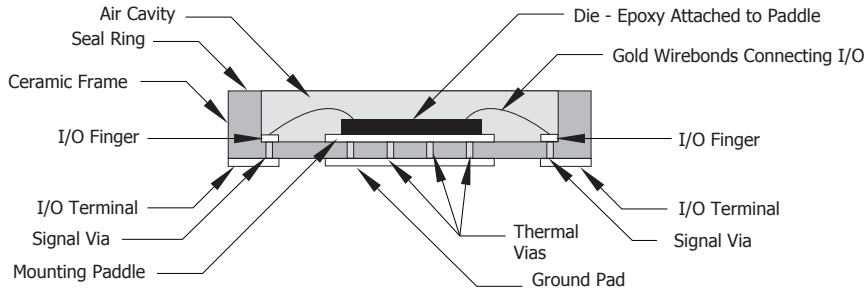


ITAR REGISTERED



Ceramic QFN Overview

- 6 Sizes: 3mm to 8mm
- HTCC Al₂O₃
- Hermetically Sealable
- Air Cavity Design
- Broadband Performance
- RoHS Compliant
- Bare or Grounded Seal Ring
- Optional Castellations
- JEDEC MO-220 Footprint



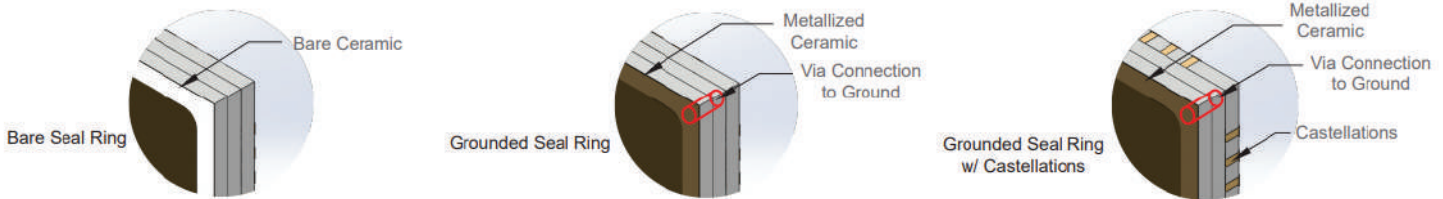
Plating Configuration:

	Min.		Max.	
EN (Electroless Nickel)	3.0 μm	[120 μin]	6.0 μm	[240 μin]
EP (Electroless Palladium)	0.15 μm	[6.0 μin]	0.3 μm	[12.0 μin]
IG (Immersion Gold)	0.03 μm	[1.2 μin]	0.15 μm	[6.0 μin]

Ceramic QFN Sizes:

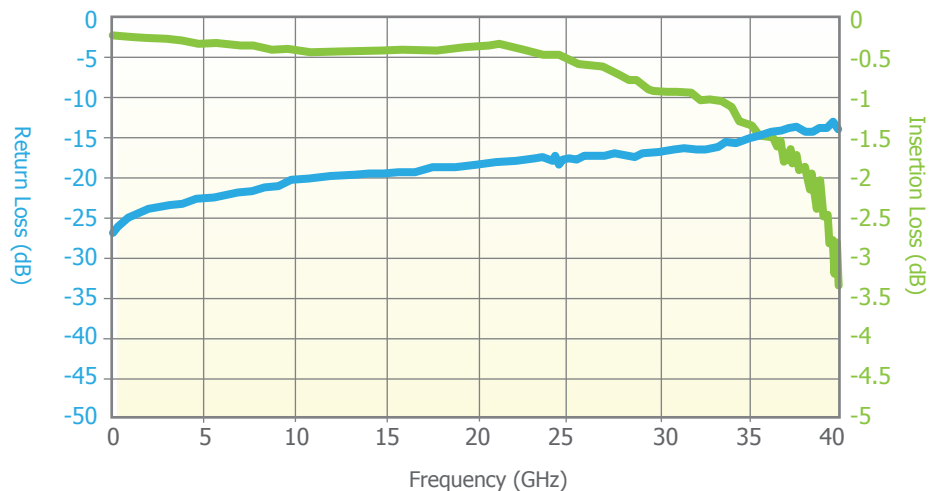
Size:	3mm	4mm	5mm	6mm	7mm	8mm
MO-220 Footprint:	VEED-5	VGGD-5	VHHD-5	VJJD-5	VKKD-5	VLLD
Standard Pin Count:	12	20	32	36	44	48

Ceramic QFN Configurations:



Ceramic QFN Performance Example:

This graph shows typical performance of a 5mm Ceramic QFN from DC-40GHz. Insertion loss was measured through package with air line over ground plane.





Barry Industries Inc. is a leading manufacturer of ceramic components including attenuators, resistors, terminations, semiconductor packaging and custom thick film circuits.

For decades, leading providers of mission-critical devices have relied on Barry components.

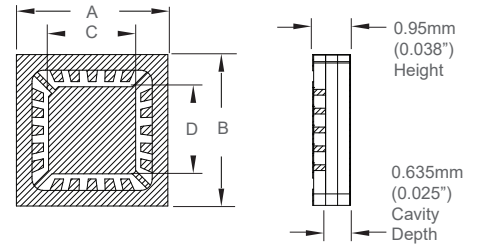
We are an ISO9001 certified, ITAR registered company with headquarters and manufacturing operations in Attleboro, Massachusetts. We invite you to visit our facility. We know that you will like what we have to show you.

-The Barry Team



Ceramic QFN Dimensions:

A	B	C	D	Pins	Pitch
3.0 (0.118)	3.0 (0.118)	1.35 (0.053)	1.35 (0.053)	12	0.5 (0.020)
4.0 (0.157)	4.0 (0.157)	2.30 (0.091)	2.30 (0.091)	20	0.5 (0.020)
5.0 (0.197)	5.0 (0.197)	3.30 (0.130)	3.30 (0.130)	32	0.5 (0.020)
6.0 (0.236)	6.0 (0.236)	4.22 (0.166)	4.22 (0.166)	36	0.5 (0.020)
7.0 (0.276)	7.0 (0.276)	5.22 (0.206)	5.22 (0.206)	44	0.5 (0.020)
8.0 (0.315)	8.0 (0.315)	6.22 (0.245)	6.22 (0.245)	48	0.5 (0.020)

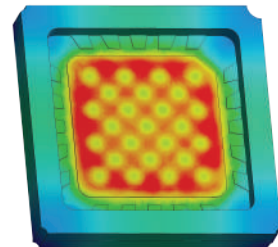


Dimensions Shown in mm (in)

Ceramic QFN Thermal Resistance:

Size	Al ₂ O ₃
3mm	8.0°C/W
4mm	3.0°C/W
5mm	1.5°C/W
6mm	0.9°C/W
7mm	0.6°C/W
8mm	0.4°C/W

Al₂O₃
5mm QFN
 1.5°C/W
 Thermal Resistance



Ceramic QFN Ordering Information:

QFN - 33 12 - 05 21		PN = 3mm QFN with Grounded Seal Ring
Standard Sizes & Pin Counts:		
<input type="checkbox"/>	33 12	= 3.0mm ² QFN (0.118") with 12 Pins
<input type="checkbox"/>	44 20	= 4.0mm ² QFN (0.157") with 20 Pins
<input type="checkbox"/>	55 32	= 5.0mm ² QFN (0.197") with 32 Pins
<input type="checkbox"/>	66 36	= 6.0mm ² QFN (0.236") with 36 Pins
<input type="checkbox"/>	77 44	= 7.0mm ² QFN (0.276") with 44 Pins
<input type="checkbox"/>	88 48	= 8.0mm ² QFN (0.315") with 48 Pins
Features:		
20 = Bare Seal Ring		
21 = Grounded Seal Ring		
22 = Grounded Seal Ring w/ Castellations		
HTCC Material:		
05 = Al ₂ O ₃		

Many other options & configurations available. Custom requests are our specialty!
 All part illustrations are for reference purposes only.



EST 1977

barryind.com

- To 40GHz
- HTCC Al₂O₃
- Fully Hermetic



BARRY

Ceramic **QFN** Family

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