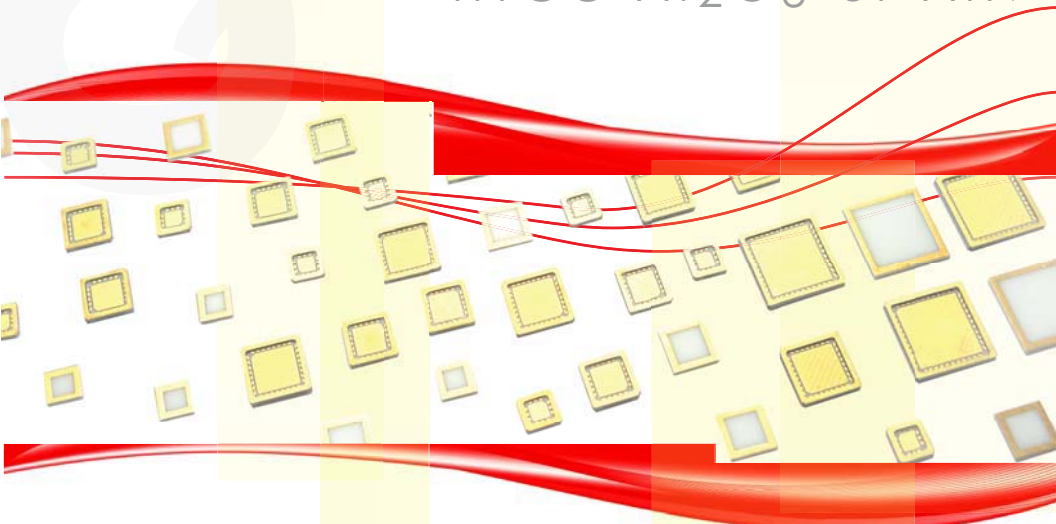


# Ceramic **QFN** Family

To 40GHz

HTCC Al<sub>2</sub>O<sub>3</sub> or AlN



Fully Hermetic

**BARRY**



ISO CERTIFIED



ITAR REGISTERED



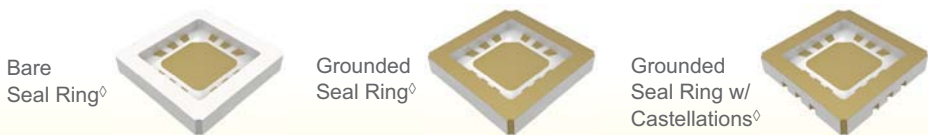
## Ceramic QFN Overview

- 6 Sizes: 3mm to 8mm
- HTCC Al<sub>2</sub>O<sub>3</sub> or AlN
- Hermetically Sealable
- Air Cavity Design
- Broadband Performance
- RoHS Compliant
- Bare or Grounded Seal Ring
- Optional Castellations
- JEDEC MO-220 Footprint

### 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

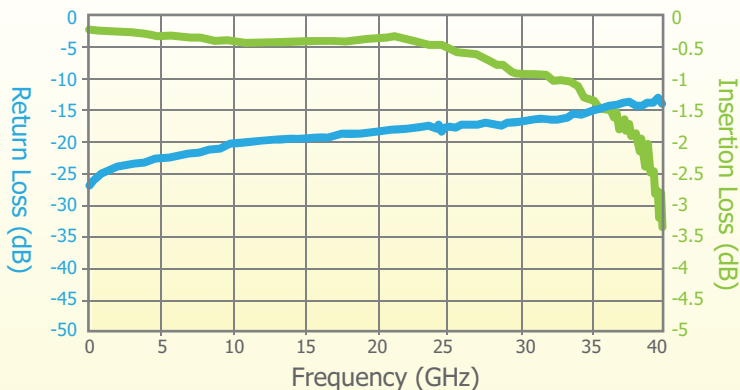
### Ceramic QFN Configurations:



<sup>◇</sup>3mm unit shown here

### 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.





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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.

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

-The Barry Team



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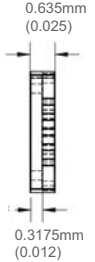
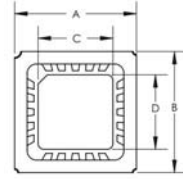
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### Ceramic QFN Dimensions:

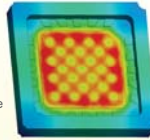
A	B	C	D	Pins
3.0mm (0.118")	3.0mm (0.118")	1.48mm (0.058")	1.48mm (0.058")	12
4.0mm (0.157")	4.0mm (0.157")	2.47mm (0.097")	2.47mm (0.097")	20
5.0mm (0.197")	5.0mm (0.197")	3.49mm (0.137")	3.49mm (0.137")	32
6.0mm (0.236")	6.0mm (0.236")	4.47mm (0.176")	4.47mm (0.176")	36
7.0mm (0.276")	7.0mm (0.276")	5.49mm (0.22")	5.49mm (0.22")	44
8.0mm (0.315")	8.0mm (0.315")	6.48mm (0.255")	6.48mm (0.255")	48



### Ceramic QFN Thermal Resistance:

Size	Al <sub>2</sub> O <sub>3</sub>	AlN
3mm	8.0°C/W	3.0°C/W
4mm	3.0°C/W	1.0°C/W
5mm	1.5°C/W	0.5°C/W
6mm	0.9°C/W	0.3°C/W
7mm	0.6°C/W	0.2°C/W
8mm	0.4°C/W	0.13°C/W

Al<sub>2</sub>O<sub>3</sub>  
5mm QFN  
1.5°C/W  
Thermal Resistance



AlN  
5mm QFN  
0.5°C/W  
Thermal Resistance









### Ceramic QFN Ordering Information:

#### QFN - 33 12 - 05 01

PN = 3mm QFN with Grounded Seal Ring

##### Standard Sizes & Pin Counts:

-  **33 12** = 3.0mm<sup>2</sup> QFN (0.118") with 12 Pins
-  **44 20** = 4.0mm<sup>2</sup> QFN (0.157") with 20 Pins
-  **55 32** = 5.0mm<sup>2</sup> QFN (0.197") with 32 Pins
-  **66 36** = 6.0mm<sup>2</sup> QFN (0.236") with 36 Pins
-  **77 44** = 7.0mm<sup>2</sup> QFN (0.276") with 44 Pins
-  **88 48** = 8.0mm<sup>2</sup> QFN (0.315") with 48 Pins

##### Features:

- 00** = Bare Seal Ring
- 01** = Grounded Seal Ring
- 02** = Grounded Seal Ring w/ Castellations

##### HTCC Material:

- 05** = Al<sub>2</sub>O<sub>3</sub>
- 07** = AlN

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



- To 40GHz
- HTCC Al<sub>2</sub>O<sub>3</sub> or AlN
- Fully Hermetic



## Ceramic **QFN** Family

**Barry Industries, Inc.**  
60 Walton St.  
Attleboro, MA 02703

US Tel: (508) 226-3350  
Outside US Tel: +00 1 (508) 226-3350  
Fax: (508) 226-3317

Email: [sales@barryind.com](mailto:sales@barryind.com)



**Gigacomp GmbH**  
Bad Aibling 83043 Germany

Tel: +49 (89) 4161 59940

email: [info@gigacomp.de](mailto:info@gigacomp.de)

[www.barryind.com](http://www.barryind.com)