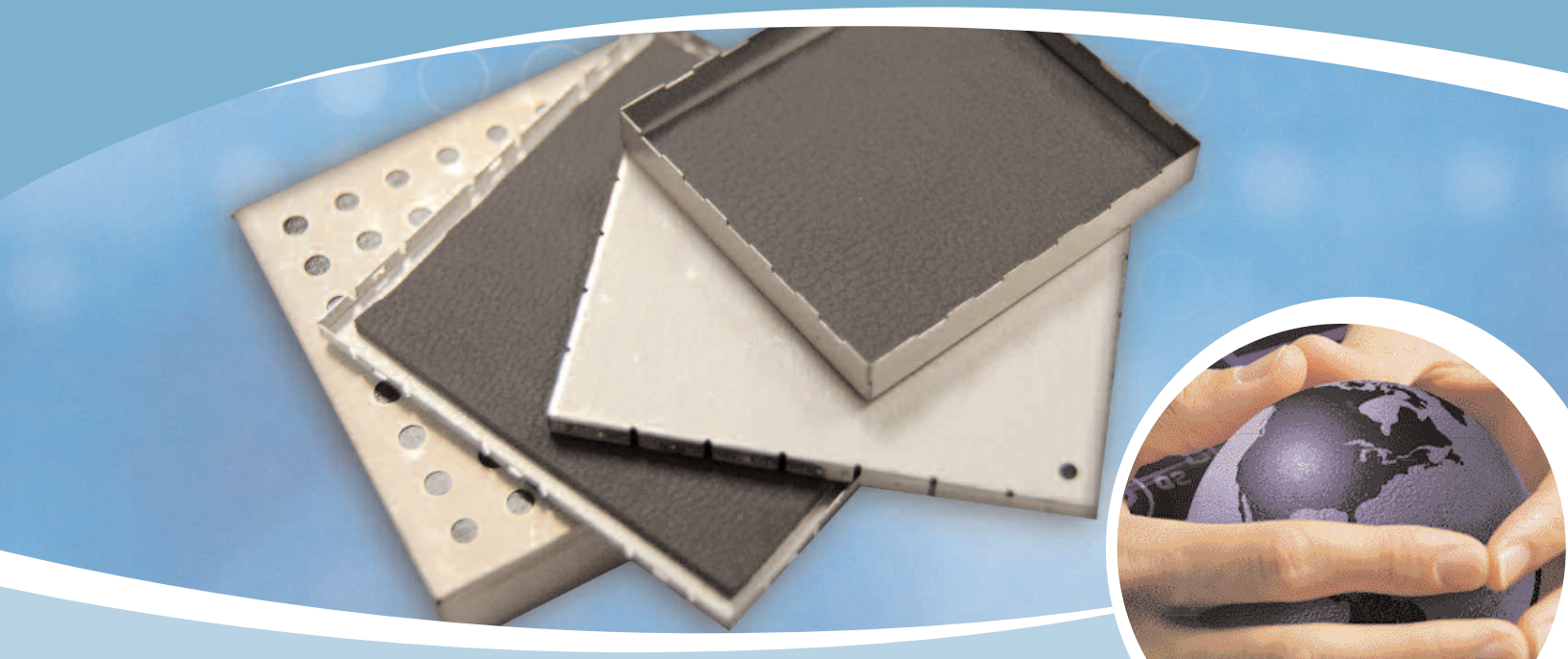
Microwave Absorber Board Level Shield



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Microwave Absorber Board Level Shield

Laird Technologies Microwave Absorber Board Level Shields (ABLS) technology for EMI shielding solutions utilizes a combination of Q-Zorb RFSW surface wave absorbers and board level shields to create a product design to meet specific application requirements.

Q-Zorb RFSW surface wave absorbers are thin, magnetically loaded elastomeric sheets designed to provide emi protection at high angles of incidence for surface wave attenuation.

Board level shields provide isolation of board level components, minimizes crosstalk and susceptibility without impacting system speed. This combination product incorporates a stamped metal housing and an absorbing elastomer that is designed to meet the specific needs of your application.

Features and Benefits:

- ABLS has enhanced shielding effectiveness at frequencies from 1 – 40 Ghz
- Use inside of microwave housings to reduce internal resonance and lower the "Q" of the microwave cavity
- Minimizes crosstalk and susceptibility without impacting system speed
- Effective in isolating antennas from ground plane reflections
- Custom shapes and other material options are available
- Provides isolation of board level components
- Low height down to 0.04" (1,0mm) to accommodate mother/daughter board configurations
- Secure cover design is ideal for applications that could be subject to shock and vibration

Applications

- Any application requiring board level shielding
- Wireless handsets, PC cards
- High frequency communications equipment, basestations
- PDAs
- Desktop and laptop computers
- Portable and non-portable electronic devices

For sales information:
In Asia please telephone +86 755 2714 1166
In Europe please telephone +49 8031 2460 0
In the USA please telephone +1-800-843-4556
or visit: **www.lairdtech.com**

Microwave Absorber Board Level Shield

Microwave Absorbers

Q-Zorb RFSW surface wave absorbers are thin, magnetically loaded elastomeric sheets designed to provide attenuation at high angles of incidence for surface wave attenuation. They are nominally manufactured in the thickness range of 0.010" to 0.125" (0.4mm to 3.2mm).

The elastomeric-based absorbers are available in a variety of choices. All of the parts utilized in our ABLS product offering utilize our silicone elastomer which has a wide temperature range (-60°F – 350°F).

Each of these products offers a UL-V0 rating and is RoHS compliant.

In the ABLS product offering, the absorber material is acting to reduce internal resonances which often occur at higher frequencies. Although the data listed below shows electrical performance from 2-18 GHz, the material offers shielding effectiveness from 1-40 GHz.

Standard Surface Mount Shields Two-Piece

Two-piece board level shields offer users the flexibility to inspect or repair shielded components without having to risk board damage by removing the entire shield or incur any tooling costs. Covers snap on and off with ease, which makes repair of the component under the shield quicker and easier and reduces board re-work. Two-piece shields are available unassembled*, and are designed to survive drop, shock and no-rattle tests.

**Pre-assembly is an option. Consult Sales.*

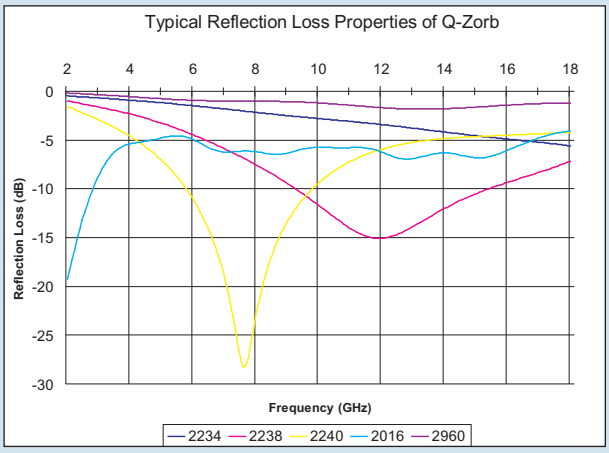
Standard Two-Piece Board Level Shields

Part Number	Surface Area	Overall Dimension	Overall Frame	Tape Width	Tape Pitch	Parts Per Reel	Weight (FR)	Weight (CY)
BMIS-201-F	.253² (163.10²)	.538 x .476 (13.66 x 12.10)	.100 (2.54)	24 mm	20 mm	1000	0.3 g	0.2
BMIS-202-F	.402² (259.21²)	.650 x .650 (16.50 x16.50)	.142 (3.60)	32 mm	24 mm	700	0.5 g	0.4
BMIS-203-F	1.033² (666.16²)	1.032 x 1.032 (26.21 x 26.21)	.200 (5.08)	44 mm	32 mm	300	1.0 g	0.8
BMIS-204-F	1.548² (998.56²)	1.260 x 1.260 (32.00 x 32.00)	.236 (6.00)	44 mm	36 mm	225	1.6 g	1.1
BMIS-205-F	1.461² (942.50²)	1.500 x 1.000 (38.10 x 25.40)	.236 (6.00)	56 mm	44 mm	250	1.6 g	1.1
BMIS-206-F	1.879² (1212.392)	1.450 x 1.326 (36.83 x 33.68)	.200 (5.08)	56 mm	40 mm	300	1.5 g	1.3
BMIS-209-F	2.997² (1933.36²)	1.747 x 1.747 (44.37 x 44.37)	.384 (9.75)	56 mm	56 mm	120	3.2 g	3.1
BMIS-210-F	2.080² (1342²)	1.732 x 1.201 (44.02 x 30.50)	.118 (3.00)	56 mm	40 mm	450	1.0 g	2.6

Material Options

Part Number	Product Category	Elastomer Type	Thickness in (mm)	Frequency (GHz) Range
2960	RFSW	Silicone	0.010" (0.3)	12-18
2234	RFSW	Silicone	0.020" (0.5)	12-18
2236	RFSW	Silicone	0.030" (0.8)	12-18
2238	RFSW	Silicone	0.040" (1.0)	8-12
2296	RFSW	Silicone	0.050" (1.3)	8-12
2240	RFSW	Silicone	0.060"(1.5)	8-12
2257	RFSW	Silicone	0.080" (2.0)	4-8
2272	RFSW	Silicone	0.100" (2.5)	2-4
2242	RFSW	Silicone	0.125" (3.2)	2-4

Typical Material Performance



**Please consult sales and order the standard shield part number (BMIS-XXX-X) and note the addition of the absorber part number (XXXX).*

Mouser Electronics

Authorized Distributor

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Laird Performance Materials:

BMI-S-209-F BMI-S-209-C BMIS-204-C BMIS-210-F BMIS-210-C 2234 2257 2272