

# SnapShot<sup>®</sup>

EMI SHIELDING TECHNOLOGY



REVOLUTIONARY BOARD LEVEL  
EMI SHIELDING FOR SUPERIOR PERFORMANCE  
AND TOTAL DESIGN FLEXIBILITY.

**XGR**<sup>™</sup>  
TECHNOLOGIES

# Who's Behind SnapShot?



**William Candy**  
President | XGR Technologies

**SnapShot®** was launched into the market by W.L. Gore & Associates in 2002 and has over 18 years of proven success in hundreds of applications in medical, military, industrial, aerospace and computing.

XGR Technologies was founded in 2018 by one of the original SnapShot® inventors and former W.L. Gore & Associates engineer, Mr. William Candy.

In 2018, Mr. Candy partnered with a group of technology investors and acquired all of the SnapShot manufacturing, intellectual property and business assets from W.L. Gore & Associates.

SnapShot continues to be manufactured to the same high quality standards in the same location using the same equipment, materials and skilled operators since its inception in 2002.

In December 2019, XGR's Quality Management System became ISO 9001:2015 certified and XGR is ITAR registered.

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XGR™ Technologies SnapShot® EMI Shields are covered by  
US Patent No: 6,377,475 and 6,744,640. Corresponding foreign patents issued.

# HOP ON BOARD

Get a closer look at what makes  
SnapShot® EMI shielding so special

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**SnapShot®** EMI Shields are revolutionary, single or multi-cavity shields that answer many challenges associated with today's existing shielding technologies. The light-weight, metallized plastic material is thermoformed to virtually any design and offers superior shielding performance compared to perforated or frame and lid style metal cans.



# A Peek Inside SnapShot's Superior Build

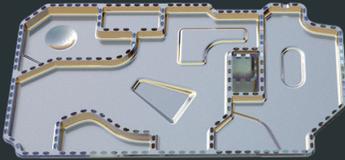
Lightweight metallized plastic and revolutionary "snap-in-place" set the SnapShot apart.



## | Metallized Plastic

- Conductive outer surface (Tin)
- Non-conductive inner surface (PEI)

## + Polyetherimide

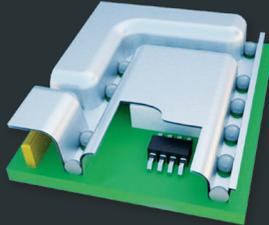


## + Tin Plating



## | Attaches by "snapping" over Solder Spheres

- Manual or automated with the use of installation tooling
- Creates strong electromechanical connection



## + SnapShot® EMI Shields Typical Properties

Shield Material Property	Value	Method
Thickness	0.125 mm	–
Planar Shielding	75 dB	ASTM D4935
Surface Resistivity	0.025 Ohms/square	ASTM F390
Metalization Adhesion	5B	ASTM D3359
Metalization Thickness	5 Microns	SEM
Dielectric Strength	80 kV/mm	ASTM D149
Vicat Softening Temp. B	215°C	ASTM D1525

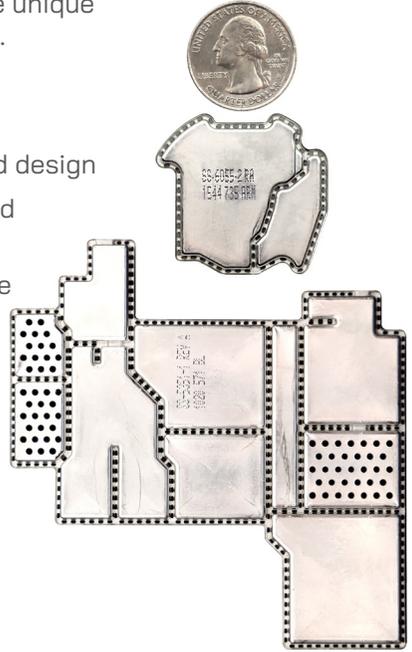
# FEATURES + BENEFITS

## + Design Flexibility

Each application is custom designed to meet the unique size and shape requirements of the board layout.

Shields are thermoformed to virtually any shape

- | Single or multi-cavity for high density board design
- | Multiple height profiles within a single shield
- | Low profile with zero clearance required between components and inner shield surface
- | With or without perforations
- | "Dog house" capable for superior shielding of board edge connectors



## + Extremely Rugged and Durable

Proven to withstand shock, vibration, moisture, and aging, SnapShot is ideal for industrial and military handheld electronics Extensively tested against:

- | Mechanical Shock (OEDEC JESD 22-B104-B)
- | Bump (IEC 60668-2-29)
- | Vibration (IEC 60068-2-64)
- | Thermal Shock (MIL-STD-883CA)
- | Dry Heat Aging
- | Moist Heat Aging



# FEATURES + BENEFITS

## + Installs After Reflow

Easy installation after the reflow process allows for unobstructed inspection and rework.

- | Removable and replaceable by hand without damage to the board and no need for resoldering
- | Easy BGA attachment mechanism using solder spheres as individual mechanical snap features
- | Allows for Automated Optical Inspection

Solder Spheres attached during reflow



SnapShot® Shield Attached after reflow



## + Very Lightweight

Ideal for applications where grams matter.

- | Specialized thermoplastic material is extremely lightweight
- | Thin, non-ferrous engineered polymer is metallized with tin on the outside surface

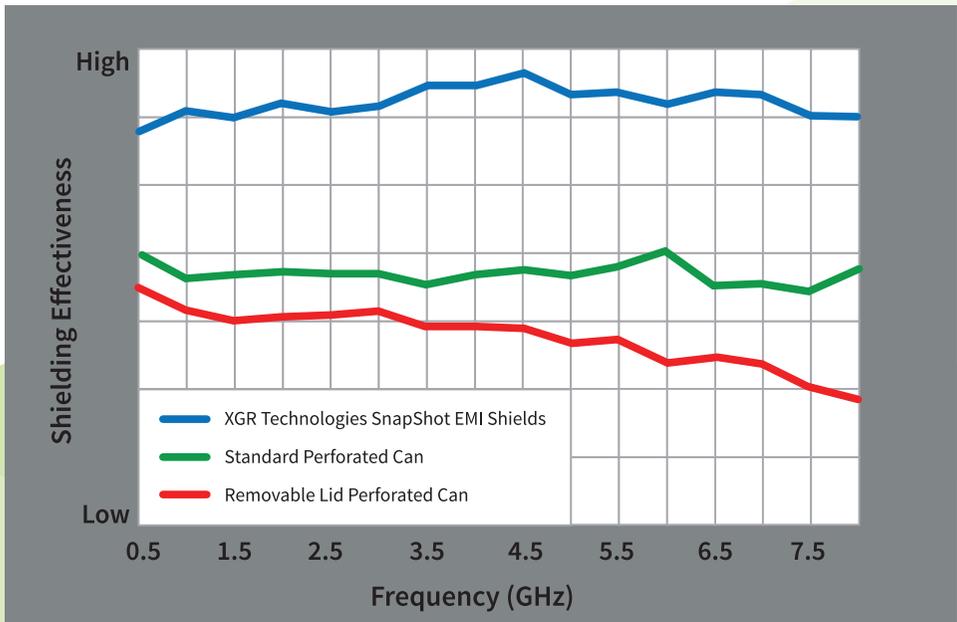


# FEATURES + BENEFITS

## + Superior Shielding Effectiveness

- | SnapShot® outperforms competitive options in shielding effectiveness from below 1 GHz to 12 GHz
- | Extremely consistent isolation across a wide frequency range
- | Non-conductive interior surface reduces electromagnetic coupling with circuit traces, minimizes overall volume, and eliminates shorting threats

### Relative Shielding Effectiveness of XGR SnapShot EMI Shields Versus Traditional Metal Cans (10 dB per Division)



# HISTORY OF SUCCESS

## MEDICAL ELECTRONICS



## GPS BASED DEVICES



## HANDHELDS

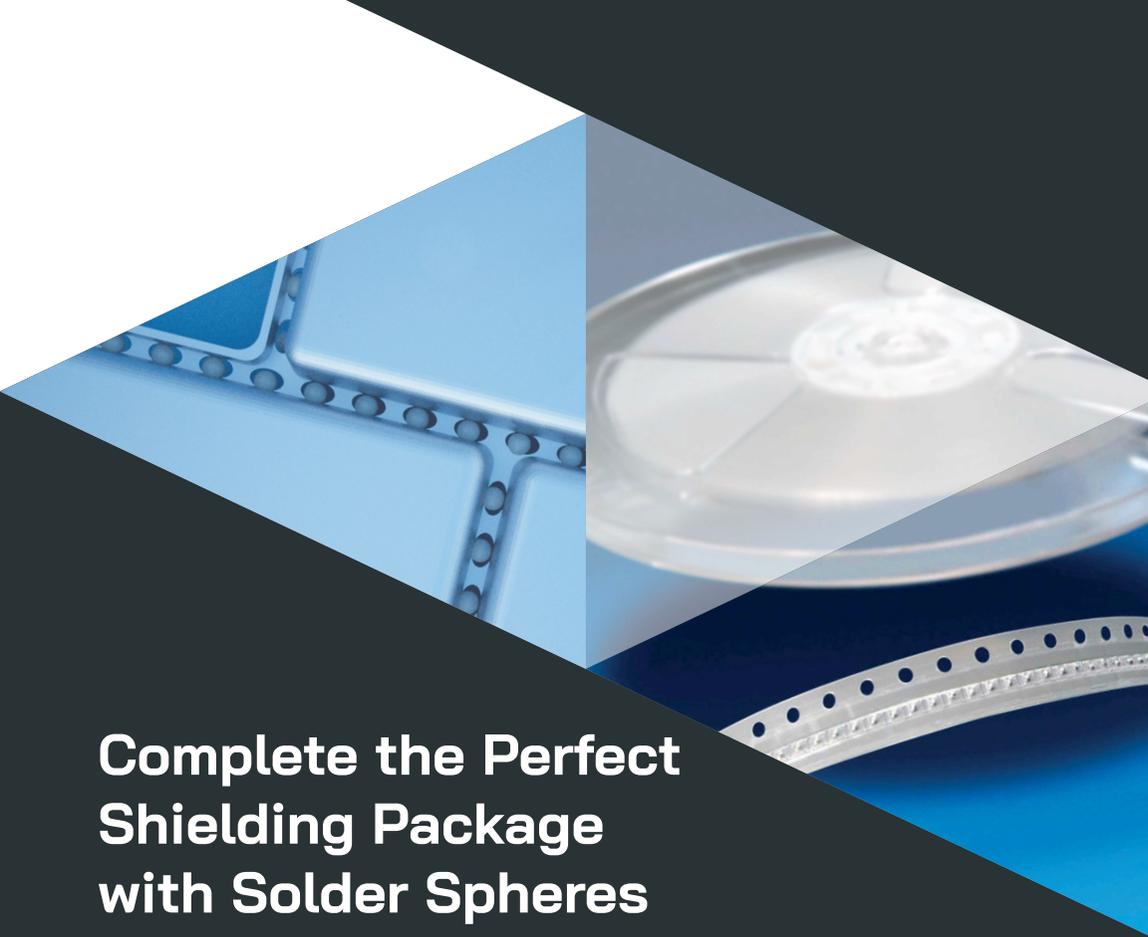


## DRONES AND AVIONICS



## NETWORK COMPUTING





# Complete the Perfect Shielding Package with Solder Spheres

To facilitate the use of XGR SnapShot EMI Shield on your product, XGR is proud to provide solder spheres in tape and reel packaging. Solder spheres packaged in this manner can be used on standard SMT equipment, are RoHS and REACH compliant.

## + Characterization Chart

<b>XGR P/N</b>	10184670
<b>Composition</b>	96.5Sn/3.5Ag
<b>Diameter</b>	0.035" (0.889mm)
<b>Dia. Tolerance</b>	+/-0.0015" (0.038mm)
<b>Spheres/Reel</b>	20,000
<b>Tape and Reel Std</b>	EIA 481
<b>Tape Width</b>	8mm
<b>Tape Pitch</b>	2mm
<b>Reel Diameter</b>	13"

# SnapShot®

## Ready to get on board?

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For more information, to discuss your specific application needs, or to receive a free sample of our products, please get in touch with your Sales Representative or contact XGR Technologies directly. We'll be happy to help you find a **SnapShot®** solution that solves your shielding challenges.



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