# PurConnect ANTENNAS TM A Family Brand of Mobile Mark

# **SMHG944**

# **DUAL CARRIER MULTIBAND MIMO ANTENNA**

#### PRODUCT OVERVIEW

The SMHG944 is an 9-cable multiband antenna covering Cellular, WiFi, and GNSS. This antenna is ideal for High-Speed Mobile Cellular/WiFi communication systems.

- Small and Powerful: The SMHG944 features (4x) 5G Sub-6, (4x) Wifi 6e/7, and (1x) GNSS. Covering all the Cellular, WiFi and GNSS frequencies.
- Built to last. Capitalizing on a rugged, UV rated ASA radome, the SMHG944 is water resistant, vibration and shock resistant, making it easy to mount on a metal surface or ground plane.

Tested and trusted, Mobile Mark focuses on quality, fast delivery, and leveraging the expertise of highly skilled professionals, specializing in customizable manufacturing solutions across North America and Europe. By combining advanced technologies with comprehensive team knowledge, we ensure tailored products that meet diverse needs, all delivered efficiently to exceed expectations.

Frequency & Gain  5G/LTE Cables 1 - 4  WiFi 6E Cables 5 - 8  GNSS Cable 9  VSWR  5G/LTE  1561, 1575, & 1602 MHz, 2 dBi Peak 1710 - 7200 MHz, 5 dBi Peak 1710 - 7200 MHz, 2 dBi Peak 1710 - 7200 MHz, 5 dBi Peak 1810 - 7200 MHz, 2 dBi Peak 1810 - 7200 MHz, 5 dBi Peak 1810 - 720 MHz, 5 dBi Peak 1810 - 720 MHz, 5 dBi Peak 1810 - 720 MHz, 5 dB	Electrical Specifications			
GNSS Cable 9  VSWR  GNSS Cable 9  VSWR  SG/LITE  C2.5:1 VSWR Over Range  WiFi 6E  C2:1 VSWR Over Range  WiFi 6E  C3:1 VSWR Over Range  WiFi 6E  C3:1 VSWR Over Range  WiFi 6E  C4:1 VSWR Over Range  WiFi 6E  C4:1 VSWR Over Range  So Ohm Nominal  OWatts  Amplifier Bias Voltage  Gain  C4:2 GdB, 3 dBi  C4:2 C4:3 Amailable in Black or White  C5:3 Mechanical Specifications  Radome Material & Color  Weight  Weight  C5:5 (139 mm) in Diameter & 3.2" (82 mm) in Height  C6:5 (139 mm) in Diameter & 3.2" (82 mm) in Height  C7:5 (139 mm) in Diameter & 3.2" (82 mm) in Height  C7:5 (139 mm) in Diameter & 3.2" (82 mm) in Height  C7:5 (139 mm) in Diameter & 3.2" (82 mm) in Height  C7:5 (139 mm) in Diameter & 3.2" (82 mm) in Height  C7:5 (139 mm) in Diameter & 3.2" (82 mm) in Height  C8:5 (139 mm) in Diameter & 3.2" (82 mm) in Height  C8:5 (139 mm) in Diameter & 3.2" (82 mm) in Height  C8:5 (139 mm) in Diameter & 3.2" (82 mm) in Height  C8:5 (139 mm) in Diameter & 3.2" (82 mm) in Height  C8:5 (139 mm) in Diameter & 3.2" (82 mm) in Height  C8:5 (139 mm) in Diameter & 3.2" (82 mm) in Height  C8:5 (140 mm) in Diameter & 3.2" (82 mm) in Height  C8:5 (140 mm) in Diameter & 3.2" (82 mm) in Height  C8:5 (140 mm) in Diameter & 3.2" (82 mm) in Height  C8:5 (140 mm) in Diameter & 3.2" (82 mm) in Height  C8:5 (150 mm) in Diameter & 3.2" (82 mm) in Height  C8:5 (150 mm) in Diameter & 3.2" (82 mm) in Height  C8:5 (150 mm) in Diameter & 3.2" (82 mm) in Height  C8:5 (150 mm) in Diameter & 3.2" (82 mm) in Height  C8:5 (150 mm) in Diameter & 3.2" (82 mm) in Height  C8:5 (150 mm) in Diameter & 3.2" (82 mm) in Height  C8:5 (150 mm) in Diameter & 3.2" (82 mm) in Height  C8:6 (150 mm) in Diameter & 3.2" (82 mm) in Height  C8:6 (150 mm) in Diameter & 3.2" (82 mm) in Height  C8:6 (150 mm) in Diameter & 3.2" (82 mm) in Height  C8:6 (150 mm) in Diameter & 3.2" (82 mm) i	Frequency & Gain			
VSWR  SG/LTE  VSWR Over Range  WiFi 6E  ViFi 0E  ViFi 0E  ViFi 0E  ViFi 0E			2.4 - 2.5 & 4.9 - 7.2 GHz, 4 dBi Peak	
WiFi 6E   < 2:1 VSWR Over Range				
Impedance Power Rating IO Watts  Amplifier Bias Voltage  Gain 26 dB, 3 dBi Current 20 mA max, 10 mA typical  Mechanical Specifications  Radome Material & Color Radome Dimension Weight 4.25 lbs (1.93 kg)  SG/LTE  RG-316 with SMA Plugs LTE-A (Green) & LTE-B (Red) WiFi 6E RG-316 with SMA Plugs (Blue)  GNSS RG-174 with SMA Plugs (Blue)  GNSS RG-174 with SMA Plugs (Blue)  4.25 lbs (1.93 kg)  SG/LTE  LL-195 with SMA Jack & SMA Plugs LTE-A (Green) & LTE-B (Red)  WiFi 6E RG-316 with SMA Plugs (Blue)  GNSS RG-174 with SMA Jack & SMA Plugs LTE-A (Green) & LTE-B (Red)  LL-195 with SMA Jack & SMA Plugs LTE-A (Green) & LTE-B (Red)  LL-195 with SMA Jack & SMA Plugs LTE-A (Green) & LTE-B (Red)  LL-195 with SMA Jack & SMA Plugs LTE-A (Green) & LTE-B (Red)  LL-195 with SMA Jack & SMA Plugs LTE-B (Red)  WiFi 6E RG-316 with SMA Jack & SMA Plugs LTE-B (Red)  LL-195 with SMA Jack & SMA Plugs LTE-B (Red)  WiFi 6E RG-174 with SMA Jack & SMA Plugs (Blue)  GNSS RG-174 with SMA Jack & SMA Plugs (Blue)  GNSS RG-174 with SMA Jack & SMA Plugs (Blue)  GNSS RG-174 with SMA Jack & SMA Plugs (Blue)  GNSS RG-174 with SMA Jack & SMA Plugs (Blue)  GNSS RG-174 with SMA Jack & SMA Plugs (Blue)  GNSS RG-174 with SMA Jack & SMA Plugs (Blue)  GNSS RG-174 with SMA Jack & SMA Plugs (Blue)  GNSS RG-174 with SMA Jack & SMA Plugs (Blue)  GNSS RG-174 with SMA Jack & SMA Plugs (Blue)  GNSS RG-174 with SMA Jack & SMA Plugs (Blue)  GNSS RG-174 with SMA Jack & SMA Plugs (Blue)  GNSS RG-174 with SMA Jack & SMA Plugs (Blue)  GNSS RG-174 with SMA Jack & SMA Plugs (Blue)  GNSS RG-174 with SMA Jack & SMA Plugs (Blue)  GNSS RG-174 with SMA Jack & SMA Plugs (Blue)  GNSS RG-174 with SMA Jack & SMA Plugs (Blue)  GNSS RG-174 with SMA Jack & SMA Plugs (Blue)  GNSS RG-174 with SMA Plugs (Blue)	VSWR	5G/LTE	< 2.5:1 VSWR Over Range	
Amplifier Bias Voltage  Gain 26 dB, 3 dBi  Current 20 mA max, 10 mA typical  Mechanical Specifications  Radome Material & Color Radome Dimension 5.50" (139 mm) in Diameter & 3.2" (82 mm) in Height 4.25 lbs (1.93 kg)  Ift (305 mm) Pigtail Cables & Connectors Exiting Antenna GNSS RG-174 with SMA Plugs (Blue)  14ft (4.27 m) Jumper Cables & Connectors Included with antenna GNSS RG-174 with SMA Plugs (Blue)  14ft (4.27 m) Jumper Cables & Connectors Included with antenna GNSS RG-174 with SMA Jack & SMA Plugs (Blue)  Operating Temperature  Mounting Mounting 1.2" (3.1 cm) Long Thread for up to 0.5" (1.3 cm) Thick Surface Ground Plane Independent IP69  Shock & Vibration IEEE-1478, EN 61373, MIL-STD-810G		WiFi 6E	< 2:1 VSWR Over Range	
Amplifier Bias Voltage  Gain 26 dB, 3 dBi  Current 20 mA max, 10 mA typical  Mechanical Specifications  Radome Material & Color  Radome Dimension Weight 4.25 lbs (1.93 kg)  1ft (305 mm) Pigtail Cables & Connectors Exiting Antenna  WiFi 6E Connectors Exiting Antenna  14ft (4.27 m) Jumper Cables & Connectors Included with antenna  Mounting Operating Temperature  Mounting Ones Shock & Vibration  Mounting Ones Shock & Vibration  Amplifier Bias Voltage 20 m2 dB, 3 dBi  20 mA max, 10 mA typical  20 mA max, 10 mA typical  Mechanical Specifications  White Should Available in Black or White  5.50" (139 mm) in Diameter & 3.2" (82 mm) in Height  4.25 lbs (1.93 kg)  FG-J1TE RG-316 with SMA Plugs (Blue)  FG-J1TE LL-195 with SMA Jack & SMA Plugs (ITE-A (Green) & LTE-B (Red)  WiFi 6E LL-195 with SMA Jack & Rev Pol SMA Plugs (Blue)  RG-174 with SMA Jack & Rev Pol SMA Plugs (Blue)  RG-174 with SMA Jack & SMA Plug (Yellow)  Operating Temperature  -40° to +80° C  0.8" (2 cm) Dia. Feed Through 1.2" (3.1 cm) Long Thread for up to 0.5" (1.3 cm) Thick Surface Ground Plane Independent  Dust & Water Ingress  Shock & Vibration  IEEE-1478, EN 61373, MIL-STD-810G	Impedance	50 Ohm Nominal		
Voltage  Gain Current Zo mA max, 10 mA typical  Mechanical Specifications  Radome Material & Color Radome Dimension Weight 4.25 lbs (1.93 kg)  Solution  Tift (305 mm) Pigtail Cables & Connectors Exiting Antenna  WiFi 6E Connectors Included with antenna  14ft (4.27 m) Jumper Cables & Connectors Included with antenna  Mounting  Mounting  Mounting  Woltage  Gain 26 dB, 3 dBi 20 mA max, 10 mA typical 20 ma max, 10 mA typi	Power Rating	10 Watts		
Mechanical Specifications  Radome Material & Color Radome Dimension Weight  4.25 lbs (1.93 kg)  SG/LTE  1ft (305 mm) Pigtail Cables & Connectors Exiting Antenna  GNSS Connectors Included with antenna  Test (4.27 m) Jumper Cables & Connectors Included with antenna  Mounting  Mounting  Dust & Water Ingress Shock & Vibration  Mechanical Specifications  10 mA max, 10 mA typical  20 mA max, 10 max,	GNSS		3 to 5 VDC	
Radome Material & Color  Radome Dimension  Weight  1ft (305 mm) Pigtail Cables & Connectors Exiting Antenna  WiFi 6E  Connectors Included with antenna  Mounting  Mounting  Mechanical Specifications  UV-Stable ASA, Available in Black or White  5.50" (139 mm) in Diameter & 3.2" (82 mm) in Height  4.25 lbs (1.93 kg)  SG/LTE  RG-316 with SMA Plugs LTE-A (Green) & LTE-B (Red)  WiFi 6E  RG-316 with SMA Plugs (Blue)  RG-316 with SMA Plugs (Blue)  GNSS  RG-174 with SMA Plug (Yellow)  LL-195 with SMA Jack & SMA Plugs LTE-A (Green) & LTE-B (Red)  WiFi 6E  LL-195 with SMA Jack & Rev Pol SMA Plugs (Blue)  GNSS  RG-174 with SMA Jack & Rev Pol SMA Plugs (Blue)  GNSS  RG-174 with SMA Jack & SMA Plug (Yellow)  Operating Temperature  -40° to +80° C  0.8" (2 cm) Dia. Feed Through 1.2" (3.1 cm) Long Thread for up to 0.5" (1.3 cm) Thick Surface Ground Plane Independent  Dust & Water Ingress  Shock & Vibration  IEEE-1478, EN 61373, MIL-STD-810G		Gain	26 dB, 3 dBi	
Radome Material & Color Radome Dimension Weight  4.25 lbs (1.93 kg)  5G/LTE RG-316 with SMA Plugs LTE-A (Green) & LTE-B (Red)  WiFi 6E RG-316 with SMA Plugs (Blue)  RG-174 with SMA Plug (Yellow)  LL-195 with SMA Jack & SMA Plugs LTE-A (Green) & LTE-B (Red)  WiFi 6E RG-174 with SMA Plug (Yellow)  LL-195 with SMA Jack & SMA Plugs LTE-A (Green) & LTE-B (Red)  WiFi 6E RG-174 with SMA Jack & SMA Plugs LTE-B (Red)  WiFi 6E RG-174 with SMA Jack & SMA Plugs LTE-B (Red)  WiFi 6E RG-174 with SMA Jack & SMA Plugs LL-195 with SMA Jack & Rev Pol SMA Plugs (Blue)  RG-174 with SMA Jack & SMA Plug (Yellow)  Operating Temperature  -40° to +80° C  0.8" (2 cm) Dia. Feed Through 1.2" (3.1 cm) Long Thread for up to 0.5" (1.3 cm) Thick Surface Ground Plane Independent  Dust & Water Ingress Shock & Vibration  IEEE-1478, EN 61373, MIL-STD-810G		Current	20 mA max, 10 mA typical	
Radome Dimension Weight  4.25 lbs (1.93 kg)  5G/LTE RG-316 with SMA Plugs LTE-A (Green) & LTE-B (Red)  WiFi 6E RG-316 with SMA Plugs (Blue)  RG-174 with SMA Plugs (Yellow)  LL-195 with SMA Jack & SMA Plugs LTE-A (Green) & LTE-B (Red)  WiFi 6E LL-195 with SMA Jack & SMA Plugs LTE-B (Red)  WiFi 6E RG-174 with SMA Plug (Yellow)  LL-195 with SMA Jack & SMA Plugs LTE-B (Red)  WiFi 6E RG-174 with SMA Jack & SMA Plugs LTE-B (Red)  WiFi 6E RG-174 with SMA Jack & SMA Plugs LTE-B (Red)  WiFi 6E RG-174 with SMA Jack & Rev Pol SMA Plugs (Blue)  RG-174 with SMA Jack & SMA Plug (Yellow)  Operating Temperature  -40° to +80° C  0.8" (2 cm) Dia. Feed Through 1.2" (3.1 cm) Long Thread for up to 0.5" (1.3 cm) Thick Surface Ground Plane Independent  Dust & Water Ingress  Shock & Vibration  IEEE-1478, EN 61373, MIL-STD-810G	Mechanical Specifications			
Weight  4.25 lbs (1.93 kg)  5G/LTE  RG-316 with SMA Plugs LTE-A (Green) & LTE-B (Red)  WiFi 6E  RG-316 with SMA Plugs (Blue)  RG-174 with SMA Jack & SMA Plugs LTE-A (Green) & LTE-B (Red)  LL-195 with SMA Jack & SMA Plugs LTE-A (Green) & LTE-B (Red)  LL-195 with SMA Jack & Rev Pol SMA Plugs (Blue)  RG-174 with SMA Jack & Rev Pol SMA Plugs (Blue)  RG-174 with SMA Jack & SMA Plug (Yellow)  Operating Temperature  Mounting  Mounting  Mounting  Dust & Water Ingress  Shock & Vibration  LEEE-1478, EN 61373, MIL-STD-810G	Radome Material & Color	UV-Stable ASA, Available in Black or White		
1ft (305 mm) Pigtail Cables & Connectors Exiting Antenna  SG/LTE  RG-316 with SMA Plugs LTE-A (Green) & LTE-B (Red)  WiFi 6E  RG-316 with SMA Plugs (Blue)  GNSS  RG-174 with SMA Plug (Yellow)  LL-195 with SMA Jack & SMA Plugs LTE-A (Green) & LTE-B (Red)  LL-195 with SMA Jack & SMA Plugs LTE-B (Red)  WiFi 6E  WiFi 6E  RG-316 with SMA Plugs (Blue)  LL-195 with SMA Jack & SMA Plugs LTE-B (Red)  LL-195 with SMA Jack & Rev Pol SMA Plugs (Blue)  GNSS  RG-174 with SMA Jack & Rev Pol SMA Plugs (Blue)  COMPART OF THE SMA Plug (Yellow)  Operating Temperature  -40° to +80° C  O.8" (2 cm) Dia. Feed Through 1.2" (3.1 cm) Long Thread for up to 0.5" (1.3 cm) Thick Surface Ground Plane Independent  Dust & Water Ingress  Shock & Vibration  IEEE-1478, EN 61373, MIL-STD-810G	Radome Dimension	5.50" (139 mm) in Diameter & 3.2" (82 mm) in Height		
1ft (305 mm) Pigtail Cables & Connectors Exiting Antenna  WiFi 6E  RG-316 with SMA Plugs (Blue)  GNSS  RG-174 with SMA Plug (Yellow)  LL-195 with SMA Jack & SMA Plugs LTE-A (Green) & LTE-B (Red)  LL-195 with SMA Jack & SMA Plugs LTE-A (Green) & LTE-B (Red)  WiFi 6E  WiFi 6E  LL-195 with SMA Jack & SMA Plugs (Blue)  GNSS  RG-174 with SMA Jack & Rev Pol SMA Plugs (Blue)  GNSS  RG-174 with SMA Jack & SMA Plug (Yellow)  Operating Temperature  -40° to +80° C  0.8" (2 cm) Dia. Feed Through 1.2" (3.1 cm) Long Thread for up to 0.5" (1.3 cm) Thick Surface Ground Plane Independent  Dust & Water Ingress  Shock & Vibration  IEEE-1478, EN 61373, MIL-STD-810G	Weight	4.25 lbs (1.93 kg)		
Connectors Exiting Antenna  WiFi 6E  RG-316 with SMA Plugs (Blue)  GNSS  RG-174 with SMA Plug (Yellow)  LL-195 with SMA Jack & SMA Plugs LTE-A (Green) & LTE-B (Red)  14ft (4.27 m) Jumper Cables & Connectors Included with antenna  WiFi 6E  WiFi 6E  GNSS  RG-174 with SMA Jack & Rev Pol SMA Plugs (Blue)  GNSS  RG-174 with SMA Jack & SMA Plug (Yellow)  Operating Temperature  -40° to +80° C  0.8" (2 cm) Dia. Feed Through 1.2" (3.1 cm) Long Thread for up to 0.5" (1.3 cm) Thick Surface Ground Plane Independent  Dust & Water Ingress  Shock & Vibration  IEEE-1478, EN 61373, MIL-STD-810G		5G/LTE		
14ft (4.27 m) Jumper Cables & Connectors Included with antenna  WiFi 6E  WiFi 6E  WiFi 6E  Mounting  Operating Temperature  Mounting  Mounting  Dust & Water Ingress  Shock & Vibration  SG/LTE  LL-195 with SMA Jack & SMA Plugs  LL-195 with SMA Jack & Rev Pol SMA Plugs (Blue)  RG-174 with SMA Jack & SMA Plug (Yellow)  O.8" (2 cm) Dia. Feed Through 1.2" (3.1 cm) Long Thread for up to 0.5" (1.3 cm) Thick Surface Ground Plane Independent  IP69  IEEE-1478, EN 61373, MIL-STD-810G		WiFi 6E	RG-316 with SMA Plugs (Blue)	
14ft (4.27 m) Jumper Cables & Connectors Included with antenna  WiFi 6E  CONSS		GNSS	RG-174 with SMA Plug (Yellow)	
& Connectors Included with antenna  WiFi 6E  GNSS  Operating Temperature  Mounting  Mounting  Mounting  Dust & Water Ingress  Shock & Vibration  WiFi 6E  & Rev Pol SMA Plugs (Blue)  RG-174 with SMA Jack & SMA Plug (Yellow)  -40° to +80° C  0.8" (2 cm) Dia. Feed Through 1.2" (3.1 cm) Long Thread for up to 0.5" (1.3 cm) Thick Surface Ground Plane Independent  IP69  IEEE-1478, EN 61373, MIL-STD-810G	& Connectors Included with	5G/LTE		
GNSS RG-174 with SMA Jack & SMA Plug (Yellow)  Operating Temperature -40° to +80° C  0.8" (2 cm) Dia. Feed Through 1.2" (3.1 cm) Long Thread for up to 0.5" (1.3 cm) Thick Surface Ground Plane Independent  Dust & Water Ingress IP69  Shock & Vibration IEEE-1478, EN 61373, MIL-STD-810G		WiFi 6E		
Mounting  0.8" (2 cm) Dia. Feed Through 1.2" (3.1 cm) Long Thread for up to 0.5" (1.3 cm) Thick Surface Ground Plane Independent  Dust & Water Ingress  Shock & Vibration  IEEE-1478, EN 61373, MIL-STD-810G		GNSS		
Mounting  1.2" (3.1 cm) Long Thread for up to 0.5" (1.3 cm) Thick Surface Ground Plane Independent  Dust & Water Ingress  Shock & Vibration  IEEE-1478, EN 61373, MIL-STD-810G	Operating Temperature	-40° to +80° C		
Shock & Vibration IEEE-1478, EN 61373, MIL-STD-810G	Mounting	1.2" (3.1 cm) Long Thread for up to 0.5" (1.3 cm) Thick Surface		
	Dust & Water Ingress	IP69	IP69	
PoHS Compliant Vos	Shock & Vibration	IEEE-1478, EN 61373, MIL-STD-810G		
KOTIS COMPILATION 1ES	RoHS Compliant	Yes	Yes	



### **HIGHLIGHTS:**

- Multiband: 4x 5G/LTE, 4x WiFi 6E, 1x GNSS
- MIMO 5G/LTE & WiFi 6E/Bluetooth
- · Mobile, Surface Mount
- Rugged Construction
- Ground Plane Independent

# **COMMON APPLICATIONS:**

- Vehicle Fleet Management
- Public Transportation
- · Fixed Site Private Networks
- WiFi Data Transfer
- Advanced Multiband Routers

#### **BANDS**

- 5G NR: n1, n2, n3, n4, n5, n6,n 7, n8, n12, n13, n14, n18, n20, n25, n26, n28, n29, n30, n34, n38, n39, n40, n41, n46, n47, n48, n53, n65, n66, n67, n70, n71, n77, n78, n79, n80, n81, n82, n83, n84, n85, n86, n89, n90, n95, n96, n98, n100, n101, n102, n104, n105, n106
- LTE: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 14, 17, 18, 19, 20, 22, 23, 25, 26, 27, 28, 29, 30, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 46, 47, 48, 49, 52, 53, 65, 66, 67, 68, 69, 70, 71, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 89, 90, 95, 96, 98, 100, 101, 102, 104, 105, 106, 252, 255



US Headquarters +1.847.671.6690 • US/CA Toll Free +1.800.648.2800 European Facility +44.1543.459555 • www.MobileMark.com

Moving Wireless Forward®