

SM601-SWBS(XX)(CWH-GNS) TRANSeon™ transport antenna, 2 in 1, GNSS and LTE 694-2700MHz

- Wideband LTE port covers all bands from 694 to 2700 MHz with high RF efficiency
- Built-in high performance GNSS that supports GPS, Galileo, GLONASS, and Beidou
- LSZH and fire retardant cable satisfies the most stringent safety standards
- Low profile and one 3/4" hole mount for easy installation

TRANSeon family is Sinclair's next generation transport/mobile antenna which features high RF performance and rugged design. Specifically, the SM601-SWBS(XX)(CWH-GNS) series is a 2 in 1 antenna. The RF port covers all the bands for 2G, 2.5G, 3G cellular, LTE 700-2600 MHz. The embedded GNSS antenna utilizes a high-performance LNA and supports all global navigation satellite systems, including GPS, Galileo, GLONASS, and Beidou. Rugged design with UV resistant radome and IP67 rating for reliability and long life. The compact size and low height profile of 1.95 inches allow it to blend easily with any environment and ideal for vehicle roof-top mounting. The 3/4" hole mount means allows for convenient mounting on a vehicle rooftop by drilling only one hole.



When ordering, please refer to below chart for detailed model# and connector configurations. Other options are also available, please contact your Sinclair Sales Representative or Customer Service Representative for more information.

Model Number	LTE port	GNSS port	Pigtail
SM601-SWBSSM(CWH-GNS)	SMA(m)	SMA(m)	1'30cm
SM601-SWBSNF(CWH-GNS)	N(f)	SMA(m)	1'30cm
SM601-SWBSQF(CWH-GNS)	QMA(f)	SMA(m)	1'30cm

When longer pigtail is needed, below extension cable is available upon request. Connector and cable length are fully customizable, call for details.

	Model Number	Cable	Length (nominal)	Connector Ant-end	Radio-end
LTE port:	AEC-11-500-SFSM	EF142	5m/17ft	SMA(f) + SMA(m)	
LTE port:	AEC-11-500-SFNF	EF142	5m/17ft	SMA(f) + N(f)	
LTE port:	AEC-11-500-SFQF	EF142	5m/17ft	SMA(f) + QMA(f)	
LTE port:	AEC-01-500-SFSM	RG58/U	5m/17ft	SMA(f) + SMA(m)	
LTE port:	AEC-01-500-SFNF	RG58/U	5m/17ft	SMA(f) + N(f)	
LTE port:	AEC-01-500-SFQF	RG58/U	5m/17ft	SMA(f) + QMA(f)	
GNSS port:	AEC-12-500-SFSM	EF316	5m/17ft	SMA(f) + SMA(m)	
GNSS port:	AEC-03-500-SFSM	RG174/U	5m/17ft	SMA(f) + SMA(m)	



Note:  
When mounted on a metal plane, such as vehicle rooftop, no ground plate is required. Otherwise a no less than 14 inches diameter grounding plane is needed.

Region	United States	Europe, Middle East, and Africa	Canada, Caribbean, and Latin America	Asia-Pacific
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### Electrical Specifications

Frequency Range	MHz	694 to 2700	
Bandwidth	MHz	2006	*1
Connector		Various options avail.	*2
Gain (typical)	dBi	4-7	*3
Input VSWR (max)		1.5:1	*4
Polarization		vertical	*5
Impedance	Ω	50	*6
Pattern		Omni-directional	
Average Input Power (max)	W	100	*7
Lightning protection		DC ground	
GNSS Frequency	MHz	1559-1606	*8
GNSS Polarization		RHCP	
GNSS Output Impedance	Ω	50	
GNSS Peak Gain		>=4.5 dBi	
GNSS Axial Ratio	dB	<=3	
GNSS Power Gain (typ)	dB	30	*9
GNSS Supply Voltage Range	VDC	3 to 16	
GNSS Current Consumption (typ)	mA	20	
GNSS Noise Figure (typ)	dB	0.5	
GNSS Out of Band Rejection 1		>45dB @ <1525MHz	
GNSS Out of Band Rejection 2		>45dB @ >1630MHz	

### Notes

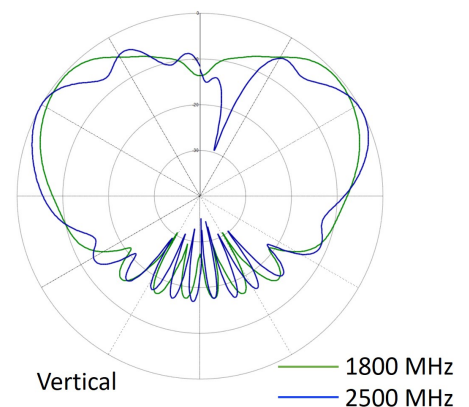
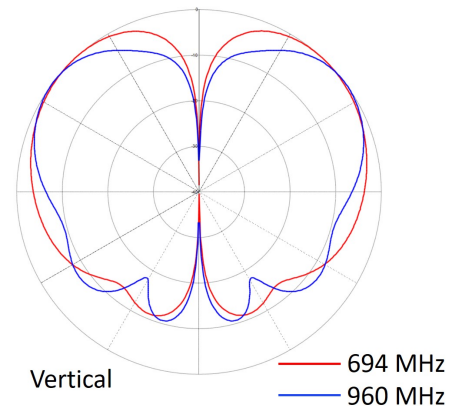
- \*1 : Average efficiency >70%
- \*2 : See previous page for details.
- \*3 : On 14" metal ground plane.
- \*4 : VSWR max 1.8:1 @ 694-746MHz
- \*5 : RF port
- \*6 : RF port
- \*7 : RF port
- \*8 : Supports GPS, Galileo, GLONASS and Beidou
- \*9 : LAN gain variance ±2dB
- \*10 : Flammability: EN 60332-1-2, UL 1581 § 1100, EN 50305, 9.1.2
- \*11 : After mounted following installation manual.

### Mechanical Specifications

Width	in (mm)	5.75 (146)	
Depth	in (mm)	5.75 (146)	
Height	in (mm)	1.95 (50)	
Cable - LTE port		EF142, LSZH, fire retardant	*10
Cable - GNS port		EF316, LSZH, fire retardant	
Radome material		UV stabilized ABS, UL94 HB	
Base plate material		aluminum	
Weight	lbs (kg)	0.9 (0.41)	
Actual shipping weight	lbs (kg)	1.35 (0.61)	
Shipping dimensions	in (mm)	10.3x7.3x5.5 (262x185x140)	
Ground Plane (min)	in (mm)	14 x 14	
Radome Colour		White	
Ingress protection		IP67	*11

### Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
Wind Loading Area (Flat Plate Equivalent)	ft² (m²)	0.06 (0.01)
Wind Loading Area (1/2" ice)	ft² (m²)	0.07 (0.01)
Lateral Thrust (100 mph No Ice)	lbs (N)	2.2 (9.8)
GPS Operating Temperature	°F (°C)	-22 to 140 (-30 to 60)



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