

New Generation Transport Antennas

Multifunctional-Upgradable

Sinclair's Multifunctional Antennas

Sinclair's new SM300 and SM600 series multifunctional transport antennas are specifically designed to address the need for compact, low profile, broadband antennas that are truly universal. When used with a cross-band coupler a single antenna can serve multiple discrete RF systems. Designed to withstand harsh environments and constant vibrations without compromising performance, the rugged SM300 and SM600 series antennas are ideal for vehicular rooftop mounting. SM300 covers frequency bands between 350-2500 MHz while the SM600 covers 746-2500 MHz. The SM300 consists of a low profile multiple-band radiating element incorporated in a small discreet housing (3.3 inches/8.4 cm). The SM600 offers easy installation with just one 3/4" (19 mm) hole mount. Both antennas are simple to install and offer greater protection against water ingress. GPS capable models are also available for both SM300 and SM600 series antennas.



SM300



SM600

Features:

Upgradable & Multifunctional: A single space efficient multifunctional antenna can be easily upgraded to serve multiple frequencies at the same time with the help of a cross-band coupler expansion kit.

Broad Bandwidth: SM300 series covers all bands for TETRA400, TETRA800, AWS, TDMA, CDMA, GSM900, GSM1800, GSM1900, EDGE, WCDMA, CDMA2000, UMTS, PHS, PCS cellular and wireless LAN systems. SM600 covers all bands for 2G, 2.5G and 3G cellular as well as GSM, WLAN, in-building wireless systems and broadband Internet access.

GPS Capability: GPS version is available for both SM300 and SM600 series antennas. This option features an additional GPS port that provides great out-of-band signal rejection performance resulting in a consistent and clear signal while minimizing loss-of-lock.

Low Profile Design: Both models feature a compact low profile design. Unobtrusive UV protected radomes offer minimal visual impact, maximum vibration absorption and ultimate waterproofing that conforms to IEC standards.

Ideal for Slightly Curved Surface: SM600 series antennas can be easily mounted on slightly curved surfaces such as rooftops of buses and trains.

SM300 and SM300 (GPS) Series

Model	Freq (MHz)	BW (MHz, Typ)	Antenna Gain (dBd)	GPS Power Gain (dB)	Height Inches/Cm
SM300-SWBSNF	350-2500	2150	Unity		3.3/8.4
SM300 GPS Option	1575	20	Unity	28	3.3/8.4

SM600 and SM600 (GPS) Series

Model	Freq (MHz)	BW (MHz, Typ)	Gain (dBd)	GPS Power Gain (dB)	Height Inches/Cm
SM600-SWBSNF	746-2500	1754	Unity		2/5
SM600 GPS Option	1575	20	Unity	28	2/5

New Cross-Band Coupler Expansion Kits

Sinclair's cross-band couplers are the ideal choice for obtaining the maximum performance out of your SM300 and SM600 series multifunctional transport antennas. A cross-band coupler enables the use of one antenna to operate several radio systems at different frequencies.



Features:

- Wide pass bands allow the combination/separation of any 138-960 MHz with 1710-2500 MHz signals.
- Add DCS, PCS or AWS BDA to an existing Cellular and SMR DAS.
- Enable feeder and antenna sharing.
- High power handling for multi-service applications.

Advantages of using Expansion Kits with SM Series Antennas:

Modular Design: The use of an expansion kit offers flexibility for future system upgrades to accommodate additional frequencies.

Easy Installation: Avoid messy cable setups, drilling numerous holes and waterproofing several antennas.

Cost Savings: Cross-band coupler expansion kits save the cost of buying and installing multiple antennas.

Prevent Water Ingression: Water ingress is a major concern when installing antennas; with only one multifunctional SM antenna to install, it is easy to ensure that the antenna is properly waterproofed.

Low Interference: Using a single multifunctional antenna can minimize interference that is common when installing multiple antennas in close vicinity to each other.

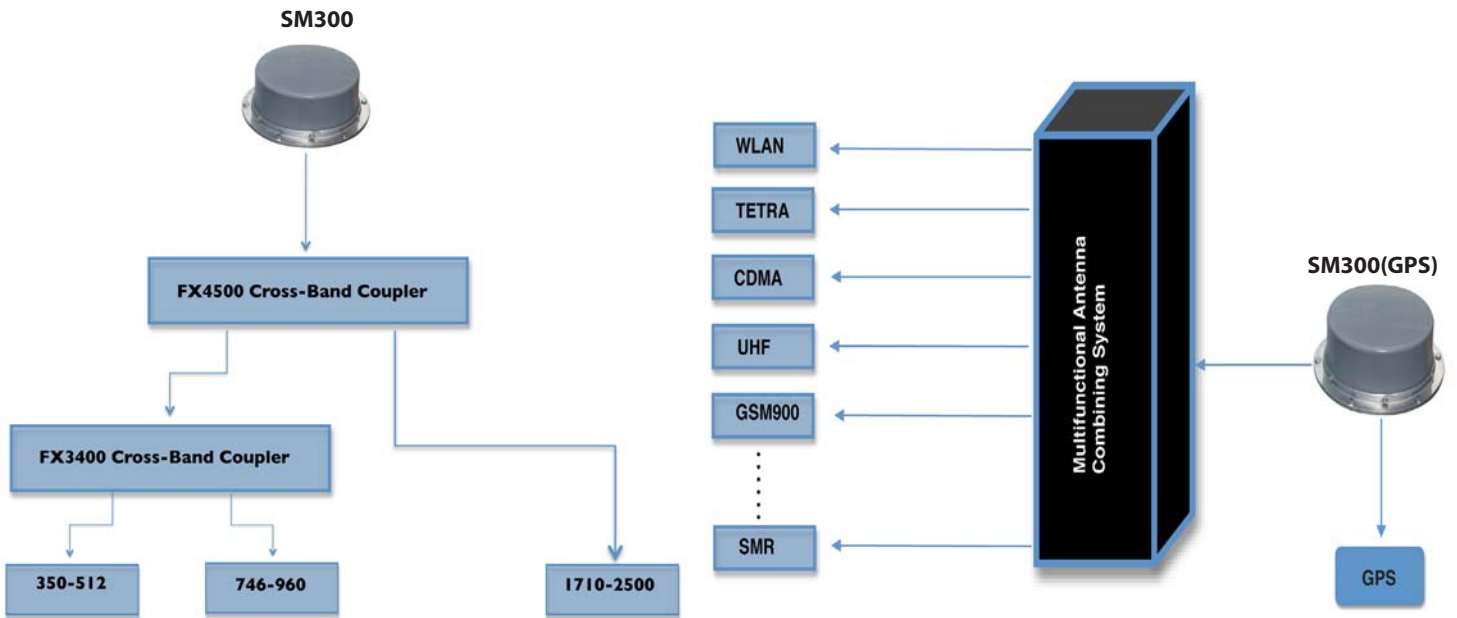
Avoid Service Interruptions: With a quick installation time, you will not experience major service interruptions or delays while upgrading your system.

Redundant Backup: Using a compact multifunctional SM antenna with an expansion kit frees up space on vehicular rooftops. This space can be utilized for a duplicate antenna system to serve as a backup in case the first system experiences technical difficulties.

Multifunctional Antenna Combining Systems Sinclair's Customized Solution For Your Needs

At Sinclair our goal is to provide you with the best solutions for your communication needs. The modular design of the new cross-band coupler expansion kit helps you avoid messy cables and multiple installations. It also saves space and creates flexibility for future utilization of the antenna. As your needs change our experienced staff can help you upgrade your antenna system to accommodate additional frequencies.

Model	Low pass band (MHz)	High pass band (MHz)	Pass band insertion loss (dB)	Low-High band isolation (dB)
FX2300	138-174	350-512	0.4 (max)	40 (min)
FX2400	138-174	746-960	0.5 (max)	40 (min)
FX3400	138-512	746-960	0.5 (max)	40 (min)
FX4500	138-960	1710-2500	0.4 (max)	40 (min)



Avoid crowded systems....



A crowded train rooftop results in interference problems, possible water ingress and space issues.

Choose a simpler solution....



An easy to install low profile multifunctional SM300 antenna when used with a cross-band coupler expansion kit can cover multiple frequencies without crowding the rooftop.

SINCLAIR[®]
Superior then, Superior now.



RELIABILITY
SECURITY
CUSTOMIZATION
COVERAGE

Sinclair provides antennas, filters, combining systems, and radio coverage solutions for RF telecommunications networks. Designed to function in extreme weather conditions, Sinclair's products enjoy a reputation for high performance, reliability, durability and value. We have been serving our markets with innovative new products since 1951.

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