

# Mobile Antennas and Duplexers

## Broad Product Range



SINCLAIR TECHNOLOGIES

### Wide Selection of Broadband and Robust Products

Sinclair offers a very broad range of rugged mobile antennas and duplexers for VHF, UHF and 700-1000 MHz applications. We can also customize our designs to meet new requirements including scaling for use in new bands of operation, special connectors, bandwidth enhancement, unique power considerations and space and visibility restrictions.

Sinclair mobile antenna and duplexer products are used extensively in vehicle fleets communicating over public safety, private and specialized mobile radio networks. Sinclair's mobile products are also often used in low power or temporary base station applications.

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ANTENNAS  
FILTERS  
DUPLEXERS  
MULTICOUPLERS  
COMBINERS  
SYSTEMS

## Sinclair Mobile Products

### Mobile Duplexers

Sinclair offers a complete line of mobile duplexers for vehicles and vehicle fleets, including standard and extremely low-profile versions. Our mobile duplexers which operate in the VHF, UHF and 700-1000 MHz bands can be customized to meet customer requirements.

### Sinclair's Mobile Duplexer Product Line

MOBILE DUPLEXER SERIES	FREQUENCY RANGE (MHz)	FREQUENCY SEPARATION (MHz)	WEIGHT (lbs / kgs)	MINIMUM ISOLATION (dB)	INSERTION LOSS MAX (dB)
MR254	138 - 174	4.5 to 10	1.8/.82	60	1.2
MR256	138 - 174	4.5 to 10	2.5/1.13	80	1.5
MR354	406 - 512	5 to 10	1.8/.82	50	1.0
MR356	380 - 512	5 to 10	2.5/1.13	75	1.4
MR456	806 - 960	up to 45	1.8/.82	60	1.5
MR2222	138 - 174	4.5 to 10	1.0/.45	50	1.5
MR2332	138 - 174	4.5 to 10	1.5/.7	70	1.8
MR2332	138 - 174	4.5 to 10	1.5/.7	70	1.8
MR332	406 - 512	5 to 10	1.0/4.7	65	1.5

#### Notes

- Connector options for standard profile types are N, TNC, BNC or UHF female
- Mobile duplexers operate from -30 to +60 C
- Mini duplexers MR2222, MR2332 and MR3332 available with BNC connectors

### Excelsior™ Mobile Whip Antennas

Sinclair Excelsior™ mobile whip antennas are available as fully-assembled off-the-shelf units. Sinclair Excelsior™ mobile antenna components can also be purchased individually through participating distributors, including loading coils and bases, stainless steel or black ferules, optional heavy duty shock spring, and tapered or untapered whip assemblies. Many mounting hardware options are also available, including magnetic, permanent and trunk lid.

### Excaliber™ Heavy Duty Mobile Antennas

For over 30 years Sinclair's Excaliber™ antennas have been the recognized standard in North America and many other parts of the world for heavy transport mobile applications. The ST221R and ST321R Excaliber™ series use low-profile, radome-enclosed designs to achieve unparalleled levels of durability and performance, and are used extensively in security vehicles, buses, heavy transport trucks and marine vessels.

### Specialty Mobile Antennas

Sinclair offers law enforcement and security operators a line of disguised antennas including the popular SUS-4062 stealth model designed for use in the 406 – 430 MHz bands. Sinclair can also design specialty security antenna products to meet your requirements.





## Sinclair's Mobile Antenna Product Line

MOBILE ANTENNA SERIES	FREQ RANGE (MHz)	TYPICAL BW (MHz)	GROUND PLANE REQ'D	TUNABLE	LENGTH (INCHES/CM'S)	POWER (WATTS)	GAIN (dBd)	STYLE
SVB-0270	27 - 30	0.75	Y	N	54/137	100	0	1/4w
SVB-0400	40 - 48	2	Y	N	52/131	100	0	1/4w
SVB-0470	47 - 54	2.5	Y	N	50/127	100	0	1/4w
SVB-0660	66 - 118	4.5	Y	Y	48/122	100	0	1/4w
SVT-1180-EX	118 - 225	7.5	Y	Y	25/64	100	0	1/4w
SVB-1482	132 - 174	26	Y	N	43/108	100	2	1/2w
SVB-1382	138 - 174	5.25	N	N	50/127	100	2	1/2w
SVB-1560	138 - 174	36	Y	N	25/62	100	0	1/4w
SVB-1383	138 - 174	5	Y	N	58/147	100	3	5/8w
SVB-1443	144 - 174	5	Y	N	52/132	100	3	5/8w
ST221R	148 - 174	5	N	N	19/48	300	0	Low Profile
ST321R	400 - 512	20	N	N	12/30	30	0	Low Profile
ST321	406 - 512	20	Y	N	7.5/19	50	0	Low Profile
ST221	138 - 222	2	Y	N	25/64	300	0	Low Profile
SUB-4062	406 - 430	20	N	N	15/38	100	2	1/2 w
SUT-4060-EX	406 - 512	100	Y	Y	8/20	100	0	1/4 w
SUB-4065	406 - 430	11	Y	N	33/84	100	5	5/8-1/2w
SUB-4066	406 - 430	13	Y	N	38/97	100	6	5/8-5/8w
SUB-4063	406 - 430	15	Y	N	16/41	100	3	5/8 w
SUS-4062	406 - 430	20	N	Y	11/27	50	2	Disguised
SUB-4302	430 - 470	20	N	N	15/38	100	2	1/2 w
SUB-4303	430 - 470	15	Y	N	16/40	100	3	5/8 w
SUB-4702	470 - 512	25	N	N	14/36	100	2	1/2 w
SUB-4703	470 - 512	20	Y	N	14/36	100	3	5/8 w
SUB-8063	806 - 896	65	Y	N	14/36	50	3	5/8-1/4w
SUB-9003	890 - 970	70	Y	N	13/33	50	3	5/8-1/4w
ST421R	764 - 960	42 - 90	Y	N	8/19	200	0	Low Profile

### Notes

- Lengths are at lowest frequency
- SUB-8063 has open and closed coil options available
- SUS-4062 comes with TNC or UHF male connector.  
Radiator length 10.5" in free space / 7.25" taped to car window.

### ST321R / ST221R Exc caliber™ Options

- With or without radome

### Options

#### SUB, SUS, SVT, SVB Excelsior™ Options

- Add Suffix "-B" for protective black finish, "-S" for stainless steel shock spring, "-SB" for both
- Contact Sinclair customer service for other mobile antenna products not listed above

**SINCLAIR**<sup>®</sup>  
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 new innovative products for over 57 years.

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