PORTABLE RADIO ANTENNAS

SPOTS!

SPOTS! FREQUENCY COLOR CODE (SEE COLOR SPOT ON ANTENNA TOP)

VHF	CENTER FREQUENCY	COLOR
144	(138 - 150 MHz)	Gray
156	(150 - 162 MHz)	Orange
160	(154 - 166 MHz)	Green
167	(160 - 174 MHz)	Red

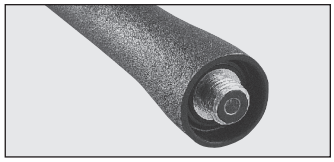
UHF	CENTER FREQUENCY	COLOR
420	(403 - 437 MHz)	Blue
450	(432 - 468 MHz)	Yellow
470	(450 - 490 MHz)	Red
490	(470 - 510 MHz)	Green

800 / 900	CENTER FREQUENCY	COLOR
832	(795 - 870 MHz)	Blue
918	(872 - 964 MHz)	Red
1800	(1710 - 1850 MHz)	Black
1900	(1850 - 1990 MHz)	Black
2400	(2400 - 2500 MHz)	Black



SPOTS! ANTENNA SELECTION GUIDE BY CONNECTOR TYPE

Determine connector type on the following pages and select the proper antenna based on frequency and type below. Field tunable antennas come with a cutting chart and cap to allow for tuning to exact frequency.



1/4-32X3/16
Male stud type mount with skirt (MX type)

Popular Brands Supported
Motorola, Kenwood, Maxon, Midland, Wilson, G.E., Vertex

1/4-32X3/16 - MALE STUD CONNECTOR (MX TYPE) CODE 10

PART NUMBER	FREQUENCY BAND (MHZ)	ANTENNA TYPE	APPROX LENGTH
SPHL10156	150 - 162	Helical Standard 1/4 λ	8”
SPHS10156	152 - 160	Helical Short 1/4 λ	4”
SPHL10160	154 - 166	Helical Standard - 1/4 λ	8”
SPHL10160IC**	CC to 157	Helical Standard 1/4 λ	8”
SPHL10167	160 - 174	Helical Standard 1/4 λ	8”
SPHL10167IC**	CC to 167	Helical Standard 1/4 λ	8”
SPWH10420	395 - 445	Whip Standard 1/4 λ	6”
SPHS10420	403 - 437	Helical Short 1/4 λ	3”
SPWH10450	425 - 475	Whip Standard 1/4 λ	6”
SPHS10450	432 - 468	Helical Short 1/4 λ	3”
SPWH10470	450 - 490	Whip Standard 1/4 λ	6”
SPHS10470	452 - 488	Helical Short 1/4 λ	3”
SPHL10FT	Field Tunable 136 - 221	Helical Standard 1/4 λ	8”
SPWH10FT	Field Tunable 400 - 512	Whip Standard 1/4 λ	6”

** This antenna is designed with a longer “skirt” for use with newer ICOM radios.

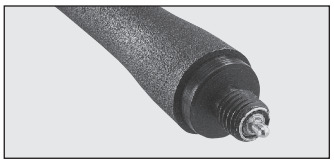
NOTE: Antennas are not to scale

PORTABLE RADIO ANTENNAS

SPOTS!

M7 X 1.00 METRIC CONNECTOR (MD TYPE) — CODE 14

PART NUMBER	FREQUENCY BAND (MHZ)	ANTENNA TYPE	APPROX LENGTH
SPEN14832	806 - 866	Whip - 1/2 λ End Fed	7”
SPWH14832	782 - 882	Whip - Standard - 1/4 λ	3”
SPHS14832	800 - 865	Helical - Short - 1/4 λ	2.75 ”
SPEN14918	890 - 960	Half λ End Fed	6”
SPHL14FT	Field Tunable 136 - 221	Helical - Standard - 1/4 λ	7”



M7.0X1.0
Male stud type connector unskirted (MD type)

Popular Brands Supported
G.E., Ericsson

BNC CONNECTOR (BN TYPE) — CODE 15

PART NUMBER	FREQUENCY BAND (MHZ)	ANTENNA TYPE	APPROX LENGTH
SPHS15450	432 - 468	Helical - Short - 1/4 λ	3”
SPHL15FT	Field Tunable 136 - 221	Helical - Standard - 1/4 λ	8”
SPWH15FT	Field Tunable 400 - 512	Whip - Standard - 1/4 λ	6”



BNC
BNC Male coaxial connector unskirted

Popular Brands Supported
G.E., Kenwood, Motorola, Maxon, Johnson

BNC CONNECTOR COVERED TYPE (BNX TYPE) — CODE 16

PART NUMBER	FREQUENCY BAND (MHZ)	ANTENNA TYPE	APPROX LENGTH
SPHL16FT	Field Tunable 136 - 221	Helical - Standard - 1/4 λ	8”
SPWH16FT	Field Tunable 400 - 512	Whip - Standard - 1/4 λ	6”

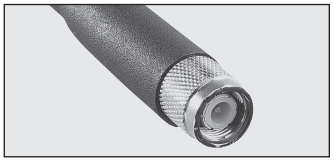


BNC-S
BNC Male coaxial connector fully skirted (BNX type)

Popular Brands Supported
Ericsson

TNC CONNECTOR - STANDARD (TN TYPE) — CODE 17

PART NUMBER	FREQUENCY BAND (MHZ)	ANTENNA TYPE	APPROX LENGTH
SPDA17832	824 - 894	Center Fed Dipole	8”
SPDA17850/1900	824 -894 / 1850 - 1990	Center Fed Dipole	7.5”
SPDA17918	890 - 960	Center Fed Dipole	8”
SPDA171800	1710 - 1850	Center Fed Dipole	6.5”
SPDA171900	1850 - 1990	Center Fed Dipole	6.5”
SPDA172400	2400 - 2500	Center Fed Dipole	6”
SPDA17RP2400	2400 - 2500	Center Fed Dipole	6”
SPDA17RP918	890 - 960	Center Fed Dipole	8”
SPHL17FT	Field Tunable 136 - 221	Helical - Standard - 1/4 λ	8”
SPWH17FT	Field Tunable 400 - 512	Whip - Standard - 1/4 λ	6”



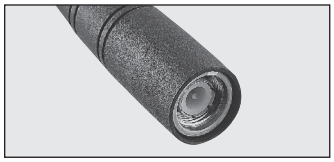
TNC
TNC Male coaxial connnector unskirted (TN type)

Popular Brands Supported
Icom, Standard

NOTE: Antennas are not to scale

PORTABLE RADIO ANTENNAS

SPOTS!



TNC-S

TNC Coaxial connector fully skirted (TNX type)

Popular Brands Supported

Vertex

TNC CONNECTOR - COVERED (TNX TYPE) — CODE 18

PART NUMBER	FREQUENCY BAND (MHZ)	ANTENNA TYPE	APPROX LENGTH
SPHL18FT	Field Tunable 136 - 221	Helical - Standard - 1/4 λ	8”
SPWH18FT	Field Tunable 400 - 512	Whip - Standard - 1/4 λ	6”



SMA MALE T1

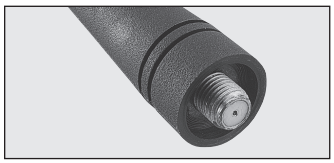
SMA Male extended base (SMS Type)

Popular Brands Supported

Standard

SMA MALE STANDARD - EXTENDED BASE - T1 (SMS TYPE) — CODE 20

PART NUMBER	FREQUENCY BAND (MHZ)	ANTENNA TYPE	APPROX LENGTH
SPWH20832	782 - 882	Whip - Standard - 1/4 λ	3”
SPHS20832	800 - 864	Helical - Short - 1/4 λ	2.75”
SPWH20918	863 - 973	Whip - Standard - 1/4 λ	3”
SPHS20918	872 - 954	Helical - Short - 1/4 λ	2.75”
SPHL20FT	Field Tunable 136 - 221	Helical - Standard - 1/4 λ	8”
SPWH20FT	Field Tunable 400 - 512	Whip - Standard - 1/4 λ	6”



SMA F T1

SMA Female flush insulator & partial skirt (SF Type)

Popular Brands Supported

Motorola

SMA FEMALE - NON STANDARD MOTOROLA TYPE (SF TYPE) — CODE 21

PART NUMBER	FREQUENCY BAND (MHZ)	ANTENNA TYPE	APPROX LENGTH
SPWB21150	136 - 174	Helical - Standard - 1/4 λ	6.75”
SPHL21156	150 - 162	Helical - Standard - 1/4 λ	8”
SPHS21156	152 - 160	Helical - Short - 1/4 λ	4”
SPHL21167	160 - 174	Helical - Standard - 1/4 λ	8”
SPHS21167	162 - 172	Helical - Short - 1/4 λ	4”
SPWH21450	425 - 475	Whip - Standard - 1/4 λ	6”
SPHS21450	432 - 468	Helical - Short - 1/4 λ	3”
SPHS21490	475 - 512	Helical - Short - 1/4 λ	3”
SPWH21832	782 - 882	Whip - Standard - 1/4 λ	3”
SPHS21832	800 - 864	Helical - Short - 1/4 λ	2.75”
SPWH21918	863 - 973	Whip - Standard - 1/4 λ	3”
SPHS21918	872 - 954	Helical - Short - 1/4 λ	2.75”
SPHL21FT	Field Tunable 136 - 221	Helical - Standard - 1/4 λ	8”
SPWH21FT	Field Tunable 400 - 512	Whip - Standard - 1/4 λ	6”

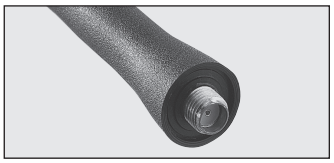
NOTE: Antennas are not to scale

PORTABLE RADIO ANTENNAS

SPOTS!

SMA FEMALE STANDARD - FLUSH BASE - T2 (SFJ TYPE) CODE 22

PART NUMBER	FREQUENCY BAND (MHZ)	ANTENNA TYPE	APPROX LENGTH
SPWB22150	136 - 174	Helical - Standard - 1/4 λ	6.75”
SPHL22156	150 - 162	Helical - Standard - 1/4 λ	8”
SPHL22167	160 - 174	Helical - Standard - 1/4 λ	8”
SPWH22450	425 - 475	Whip - Standard - 1/4 λ	6”
SPHS22450	432 - 468	Helical - Short - 1/4 λ	3”
SPWH22470	450 - 490	Whip - Standard - 1/4 λ	6”
SPHS22470	452 - 468	Helical - Short - 1/4 λ	3”
SPHS22490	475 - 512	Helical - Short - 1/4 λ	3”
SPWH22832	782 - 882	Whip - Standard - 1/4 λ	3”
SPHS22832	800 - 864	Helical - Short - 1/4 λ	2.75”
SPWH22918	863 - 973	Whip - Standard - 1/4 λ	3”
SPHS22918	872 - 954	Helical - Short - 1/4 λ	2.75”
SPHL22FT	Field Tunable 136 - 221	Helical - Standard - 1/4 λ	8”
SPWH22FT	Field Tunable 400 - 512	Whip - Standard - 1/4 λ	6”



SMA F T2

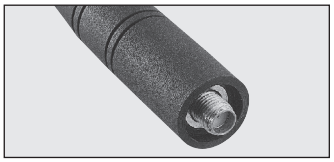
SMA Female recessed insulator & partial (short) skirt (SFJ type)

Popular Brands Supported

EF Johnson, Kenwood

SMA FEMALE STANDARD - HALF SKIRT BASE - T3 (SFU TYPE) CODE 23

PART NUMBER	FREQUENCY BAND (MHZ)	ANTENNA TYPE	APPROX LENGTH
SPWB23150	136 - 174	Helical - Standard - 1/4 λ	6.75”
SPHL23167	160 - 174	Helical - Standard - 1/4 λ	8”
SPWH23450	425 - 475	Whip - Standard - 1/4 λ	6”
SPHS23450	432 - 468	Helical - Short - 1/4 λ	3”
SPWH23470	450 - 490	Whip - Standard - 1/4 λ	6”
SPHS23470	452 - 488	Helical - Short - 1/4 λ	3”
SPWH23490	470 - 512	Whip - Standard - 1/4 λ	6”
SPHS23490	475 - 512	Helical - Short - 1/4 λ	3”
SPWH23832	782 - 882	Whip - Standard - 1/4 λ	3”
SPWH23918	863 - 973	Whip - Standard - 1/4 λ	3”
SPHS23918	872 - 954	Helical - Short - 1/4 λ	2.75”
SPHL23FT	Field Tunable 136 - 221	Helical - Standard - 1/4 λ	8”
SPWH23FT	Field Tunable 400 - 512	Whip - Standard - 1/4 λ	6”



SMA F T3

SMA Female recessed insulator & partial (long) skirt (SFU type)

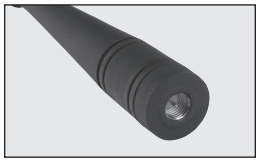
Popular Brands Supported

Kenwood (2005 and newer models), Uniden, King

NOTE: Antennas are not to scale

PORTABLE RADIO ANTENNAS

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SMA MALE T2

SMA Male flush base (SM Type)

Popular Brands

G.E., Technophone, Relm

SMA MALE - FLUSH BASE - T2 (SM TYPE) — CODE 24

PART NUMBER	CONNECTOR	FREQUENCY BAND (MHz)	ANTENNA TYPE	APPROX LENGTH
SPDA24700/2700	SMA Male	698-960/1710-2170/2500-2700	Multiband	9”
SPDA24832	SMA	824 - 894	Center Fed Dipole	9”
SPDA24850/1900	SMA	824 - 894 / 1850 - 1990	Center Fed Dipole	7.5”
SPDA24918	SMA M T2	890 - 960	Center Fed Dipole	8”
SPDA241800	SMA M T2	1710 - 1880	Center Fed Dipole	6.5”
SPDA241900	SMA M T2	1850 - 1990	Center Fed Dipole	6.5”
SPDA242400	SMA	2400 - 2500	Center Fed Dipole	6”
SPDA24RP918	SMA M T2 RP	890 - 960	Center Fed Dipole	8”
SPDA24RP2400	SMA M T2 RP	2400 - 2500	Center Fed Dipole	6”
SPDP24832	SMA M T2	824 - 894	Center Fed Dipole	8”
SPDP24918	SMA M T2	890 - 960	Center Fed Dipole	
SPDP242400	SMA M T2	2400 - 2500	Center Fed Dipole	3.5”
SPEN24815	SMA M T2	760 - 870	Whip - End Fed - 1/2 λ	7
SPHS24832	SMA M T2	800 - 864	Helical - Short - 1/4 λ	2.75”
SPWB24150	SMA M T2	136 - 174	Wideband	7.5”
SPWB24425	SMA M T2	380 - 470	Wideband	6.5”
SPWB24480	SMA M T2	440 - 520	Wideband	6”
SPWH24815	SMA M T2	760 - 870	Whip - Short - 1/4 Wave	3.5
SPWH24918	SMA M T2	863 - 973	Whip - Standard - 1/4 λ	3”
SPHS24918	SMA M T2	872 - 954	Helical - Short - 1/4 λ	2.75”
SPHL24FT	SMA M T2	Field Tunable 136 - 221	Helical - Standard - 1/4 λ	8”
SPWH24FT	SMA M T2	Field Tunable 400 - 512	Whip - Standard - 1/4 λ	6”
R380.500.125	SMA M T2 RP	2400 - 2500	Molded - 1/4 λ	2.5”

NOTE: Antennas are not to scale