

STEATITE

COMPUTING - POWER - COMMUNICATIONS

A Solid State Group Company

PRODUCTS & SERVICES

BROCHURE



MICROWAVE ANTENNAS, SUBSYSTEMS AND CONSULTANCY

WWW.STEATITE-ANTENNAS.CO.UK

ABOUT US

At the forefront of antenna design and manufacture since 1973, Steatite excels in the research, design and manufacture of ultra-wideband antennas, subsystems and associated microwave components. It provides a flexible and responsive service, utilising in-house microwave engineering expertise to successfully satisfy challenging commercial and defence antenna projects.

Products

Steatite's expertise of single, dual linear and circularly polarised receive and transmit antennas affords a proven capability to provide a wide range of high quality COTS ultra-wideband antenna products operating within the range 0.01 and 500 GHz generally not matched elsewhere. Our products extend beyond those detailed in this brochure to antenna radomes, hog/diagonal and lensed horn antennas, monopulse and slot array antennas.

Subsystems

Steatite provides a comprehensive all-weather antenna and subsystem solution to many demanding land, sea and airborne applications, including EW & radar simulators, meteorological radar sensors, satellite monitoring, ELINT, COMINT and spectrum management systems. Subsystems are assembled by integrating combinations of wideband antennas using custom mounting structures, mounted to COTS and custom designed multi-axis all weather positioners, housed in custom designed RF transparent radomes up to 40 GHz.

Capabilities

Steatite uses leading commercial electromagnetic design software from CST Microwave® along with dedicated in-house algorithms, enabling it to analyse and optimise a wide range of microwave antenna, and subsystem designs. SolidWorks®, Cosmos and FEA design and analysis tools are utilised for mechanical design work. Extensive test facilities include a state-of-the-art spherical near-field RF test chamber, able to accommodate antennas up to 3m in diameter and across the frequency range of 500 MHz to 40 GHz. An environmental test laboratory enables tests for vibration, shock, temperature and humidity.

Consultancy

Steatite regularly undertakes custom projects for military and civil clients including development studies, prototyping and technical concept studies. Technical consultancy and in-service support form a substantial part of its regular portfolio of activities.





OMNIDIRECTIONAL ANTENNAS

About our Omnidirectional Antennas

Steatite's COTS and custom designed Omnidirectional antennas provide wide bandwidth between the range 0.01 to 40 GHz.

Vertical and slant polarised antennas are available and suitable for EW, SIGINT, Direction Finding and Spectrum Management applications.

As with other Steatite products, bespoke designs or modifications may be accommodated.



QMS No.	Frequency (GHz)	Catalogue No.	Gain (dBi)	Power c.w. (W)	VSWR (Typical)	Polarisation	Connector
QMS-00427	0.01 to 1	QOM-SL-0.01-1-N-SG-R	0 to -14	Rx Only	<3.0:1	Vertical	N
QMS-00017	0.8 to 40	QOM-SL-0.8-40-K-SG-L	-2.2 to 6.9	40	<3.2:1	Vertical	K
QMS-00021	0.9 to 20	QOM-SL-0.9-20-S-SG-R	0 to 6.3	40	<3.2:1	Vertical	SMA
QMS-00019	2 to 18	QOM-SL-2-18-S-SG-R	0.2 to 7.8	40	<2.5:1	Vertical	SMA
QMS-00020	2 to 18	QOM-ST-2-18-S-SG-R	-4.3 to 8.4	50	<2.5:1	Slant	SMA
QMS-00029	26 to 40	QOM-SL-26-40-K-SG-R	2 to 4	10	<2.0:1	Vertical	K



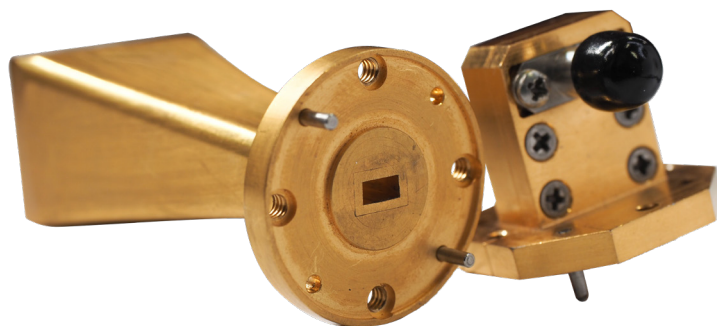
HORN ANTENNAS

About our Horn Antennas

Steatite provides a wide range of COTS and custom designed, standard gain and wideband horn antennas, 0.17 to 500 GHz, with typical gain values from 10 to 20 dBi. Higher gain horn antennas are also available typically >20 dBi.

A variety of COTS and custom designed wideband-octave and multi-octave horn antennas are provided, including rectangular, conical, multimode, sectoral, double & quad ridged, and dual polarised. Horn antennas can be adapted to meet customer specific requirements, for example waveguide-flanged and high power transition versions are available.

The list below is not exhaustive and different connector versions are available. Applications include EW, SIGINT, Test & Measurement including EMC immunity and HiRF testing. As with other Steatite products, bespoke designs or modifications may be accommodated.



Frequency (GHz)	WG / WR	QMS Reference	Catalogue No.	Gain (dBi)	Power c.w. (W)	VSWR (Typical)	Connector
0.17 to 4.0	-	QMS-00794	QWH-SL0.17-4-A-SG	3.6 to 15.9	1400	<1.5:1	7:16 DIN
0.37 to 0.47	00 / 2300	QMS-00062	QSH-SL-0.37-0.47-N-10	9.4 to 11.5	500	<1.6:1	N
0.40 to 1.6	-	-	QWH-SL-0.4-1.6-N-SG-R	12.5 to 14.5	500	<1.7:1	N
0.50 to 0.75	2 / 1500	QMS-00064	QSH-SL-0.5-0.75-N-15	12.5 to 15.5	400	<1.5:1	N
0.50 to 2.0	-	QMS-00054/55	QWH-SL-0.5-2-N-SG	7.4 to 14.5	250	<1.8:1	N
0.60 to 1.0	3 / 1150	QMS-00066	QSH-SL-0.6-1-N-10	7.7 to 12.2	400	<1.5:1	N
0.75 to 1.1	4 / 975	QMS-0068	QSH-SL-0.7-1.1-N-15	13.6 to 17.1	400	<1.6:1	N
0.80 to 4.0	-	QMS-00249	QWH-DL-0.8-4-N-SG-L	7.2 to 13.5	40	<2.3:1	x2 N
0.90 to 1.4	5 / 770	QMS-00072	QSH-SL-0.9-1.4-N-20	18.0 to 22.0	400	<1.6:1	N
0.90 to 18.0	-	QMS-00250	QWH-DL-0.9-18-S-SG-R	0.3 to 13.3	40	<2.5:1	x2 SMA
1.0 to 4.2	-	QMS-00057	QWH-SL-1-4.2-A-HG	13.6 to 18.4	1200	<2.0:1	07:16
1.0 to 8.0	-	QMS-00058	QWH-SL-1-8-B-SG	6.0 to 17.0	1500	<1.4:1	07-Aug
1.0 to 18.0	-	QMS-00059	QWH-SL-1-18-S-SG-R	1.3 to 12.8	40	<2.0:1	SMA
1.1 to 1.7	6 / 650	QMS-00080	QSH-SL-1.1-1.7-N-20	18.8 to 21.7	300	<1.4:1	N

Frequency (GHz)	WG / WR	QMS Reference	Catalogue No.	Gain (dBi)	Power c.w. (W)	VSWR (Typical)	Connector
1.4 to 2.2	7 / 510	QMS-00443	QSH-SL-1.4-2.2-A-20	18.0 to 20.5	1800	<1.3:1	Jul-16
1.7 to 2.6	8/430	QMS-00342	QSH-SL-1.7-2.6-A-20	18.4 to 21.8	1800	<1.3:1	Jul-16
2.0 to 4.0	-	QMS-00496	QWH-SL-2-4-C-SG-R	16.4 to 18.1	750	<1.6:1	SC
2.0 to 8.0	-	QMS-00259	QWH-SL-2-8-N-SG-R	10.9 to 14.3	500	<1.5:1	N
2.0 to 18.0	-	QMS-00473	QWH-DL-2-18-S-SG	6.8 to 21.6	40	<3.0:1	x2 SMA
2.0 to 18.0	-	QMS-00001	QWH-SL-2-18-S-SG-R	5.0 to 12.0	20	<2.5:1	SMA
2.0 to 18.0	-	QMS-00477	QWH-SL-2-18-N-HG-R	10.0 to 22.0	20	<2.5:1	SMA
2.0 to 18.0	-	QMS-00002	QWH-SL-2-18-N-SG-R	5.0 to 12.0	50	<2.5:1	N
2.0 to 18.0	-	QMS-00476	QWH-SL-2-18-N-HG-R	10.0 to 22.0	80	<2.5:1	N
2.0 to 18.0	-	QMS-00474	QWH-DL-2-18-N-SG-R	10.0 to 22.0	40	<2.5:1	x2 N
2.0 to 18.0	-	QMS-00447	QWH-DL-2-18-S-HG-R	10.0 to 21.0	40	<2.5:1	x2 SMA
2.2 to 3.3	9A / 340	QMS-00100	QSH-SL-2.2-3.3-N-20	18.6 to 21.6	200	<1.4:1	N
2.5 to 7.5	WRD250	QMS-00289	QWH-SL-2.5-7.5-F-SG	10.0 to 14.0	2000	<1.3:1	WRD250
2.6 to 4.0	10 / 284	QMS-00112	QSH-SL-2.6-4-N-20	18.0 to 21.0	200	<1.4:1	N
3.3 to 5.0	11A / 229	QMS-00118	QSH-SL-3-5-N-15	14.8 to 17.8	180	<1.4:1	N
3.9 to 5.9	12 / 187	QMS-00126	QSH-SL-4-6-N-20	18.0 to 21.0	200	<1.6:1	N
4.0 to 8.0	WRD350	QMS-00498	QWH-SL-4-8-F-HG	18.0 to 20.0	2000	<1.3:1	WRD350
4.9 to 7.1	13 / 159	QMS-00145	QSH-SL-5-7-S-20	18.0 to 21.0	60	<1.4:1	N
5.8 to 8.2	14 / 137	QMS-00154	QSH-SL-6-8-S-20-R	18.0 to 21.0	50	<1.6:1	SMA
6.5 to 18.0	WRD650	QMS-00732	QWH-SL-6.5-18-F-HG-CS	9.6 to 17.1	4000	<1.3:1	WRD650
7.0 to 10.0	15 / 112	QMS-00165	QSH-SL-7-10-S-20-R	18.0 to 21.0	50	<1.4:1	SMA
7.5 to 18.0	WRD750	QMS-00294	QWH-SL-7.5-18-F-20	19.0 to 21.0	2000	<1.3:1	WRD750
8.2 to 12.4	16 / 90	QMS-00178	QSH-SL-8-12-N-20	18.2 to 21.5	100	<1.3:1	N
10.0 to 15.0	17 / 75	QMS-00195	QSH-SL-10-15-N-20	18.3 to 21.5	100	<1.4:1	N
12.4 to 18.0	18 / 62	QMS-0020	QSH-SL-12-18-F-20	18.0 to 21.0	1400	<1.15:1	UBR140
15.0 to 22.0	19 / 51	QMS-00219	QSH-SL-15-22-S-20-R	17.0 to 21.0	20	<1.6:1	SMA
18.0 to 26.5	20 / 42	QMS-00226	QSH-SL-18-26-S-20-R	18.0 to 20.9	20	<1.4:1	SMA
18.0 to 40.0	-	QMS-00361	QWH-SL-18-40-K-SG	12.3 to 14.8	20	<1.7:1	K
18.0 to 40.0	-	QMS-00254	QWH-SL-18-40-K-SG	12.0 to 16.9	20	<2.5:1	x2 K
22.0 to 33.0	-	QMS-00073	QSH-SL-22-33-K-20-R	-	-	-	-
26.5 to 40.0	22 / 28	QMS-00238	QSH-SL-26.5-40-K-20	18.0 to 21.0	20	<1.2:1	K
33.0 to 50.0	23 / 22	QMS-00242	QSH-SL-33-50-V-20	18.0 to 21.0	5	<1.4:1	V
40.0 to 60.0	24 / 19	QMS-00245	QSH-SL-40-60-V-20	18.0 to 21.0	10	<1.6:1	V
50.0 to 75.0	25 / 15	QMS-00475	QSH-SL-50-75-V-20	18.0 to 21.0	5	<1.6:1	V
60.0 to 90.0	-	QMS-00482	QSH-SL-60-90-F-20	20.0 to 22.0	200	<1.2:1	WG F
75.0 to 110.0	-	QMS-00381	QSH-SL-75-110-F-20	20.0 to 22.0	200	<1.2:1	WG F
90.0 to 140.0	-	QMS-00483	QSH-SL-90-140-F-20	20.0 to 22.0	100	<1.2:1	WG F
110.0 to 170.0	WR6.5	QMS-00903	QSH-SL-110-170-F-20	25.0 to 27.0	50	<1.15:1	WG F



REFLECTOR ANTENNAS

About our Reflector Antennas

Steatite provides a wide range of COTS and custom designed prime focus, offset, solid, and segmented reflector/feed antenna combinations. Steatite reflector antennas provide high gain and low sidelobes with low VSWR levels, for receive and transmit applications including ELINT, EW, Direction Finding, Threat Emitters, Meteorological Sensors and Communication Systems.

COTS and custom designed linear, circular polarised and dual polar feeds are available. Additional offset and prime focus reflector/feed combinations can be supplied. As with other Steatite products, bespoke designs or modifications may be accommodated.



340mm Prime Focus Reflectors (152mm focal length):

QMS Ref	Frequency (GHz)	Catalogue No.	Gain (dBi)	Beamwidth (3dB)	Power c.w. (W)
QMS-00311	8-12	QSR-340-A-152 & QSF-SL-8-12-S	26.3 to 30.9	4.4 to 7.5	40
QMS-00807	6.5-18	QSR-340-A-152 & QWF-SL-6.5-18-N-R	24.5 to 31.5	3 to 9	400
QMS-00404	6.5-18	QSR-340-A-152 & QWF-DL-6.5-18-S-R	24 to 29.7	3.5 to 9	40
QMS-00610	7.5-18	QSR-340-A-152 & QWF-SL-7.5-18-F-R	26 to 33.2	3 to 7	500
QMS-00567	12-18	QSR-340-A-152 & QSF-SL-12-18-S	30.5 to 33.4	3.5 to 4.5	20
QMS-00568	18-26	QSR-340-A-152 & QSF-SL-18-26-S	33 to 36.8	2 to 3	20
QMS-00436	18-40	QSR-340-A-152 & QWF-SL-18-40-K-R	32.9 to 39.5	1.5 to 3	30
QMS-00312	18-40	QSR-340-A-152 & QWF-DL-18-40-K-R	33 to 39	1.4 to 3.2	20
QMS-00371	26-40	QSR-340-A-152 & QSF-SL-26-40-F	36.8 to 40.5	1.5 to 2.1	5000

600mm Prime Focus Reflectors (228mm Local Length):

QMS Ref	Frequency (GHz)	Catalogue No.	Gain (dBi)	Beamwidth (3dB)	Power c.w. (W)
QMS-00399	2-8	QSR-600-A-228 & QWF-SL-2-8-N-R	22.3 to 31.9	3 to 11	400
QMS-00570	6-8	QSR-600-A-228 & QSF-SL-6-8-N-R	27.5 to 30.5	4 to 5.5	50
QMS-00572	8-12	QSR-600-A-228 & QSF-SL-8-12-S-R	31.5 to 35.4	2.5 to 3.5	40
QMS-00617	2-18	QSR-600-A-228 & QWF-SL-2-18-S-R	18 to 31.4	4 to 16	20
QMS-00400	2-18	QSR-600-A-228 & QWF-DL-2-18-S-R	18 to 36	2 to 18	40
QMS-00401	6.5-18	QSR-600-A-228 & QWF-SL-6.5-18-N-R	28 to 38.5	2 to 5	400
QMS-00402	7.5-18	QSR-600-A-228 & QWF-SL-7.5-18-N-R	31.2 to 38	2 to 3.9	400
QMS-00403	18-40	QSR-600-A-228 & QWF-SL-18-40-K	38.5 to 43.6	1 to 2	20
QMS-00637	18-40	QSR-600-A-228 & QWF-DL-18-40-K-R	37 to 41.8	1.2 to 1.8	20

900mm Prime Focus Reflectors (337mm focal length):					
QMS Ref	Frequency (GHz)	Catalogue No.	Gain (dBi)	Beamwidth (3dB)	Power c.w. (W)
QMS-00317	2-8	QSR-900-A-337 & QWF-SL-2-8-N-R	22 to 31.2	2.7 to 10.4	400
QMS-00395	2-18	QSR-900-T4A-337 & QWF-DL-2-18-S-R	20 to 39	1 to 11	40
QMS-00358	6.5-18	QSR-900-A-337 & QWF-SL-6.5-18-N-R	32.4 to 40	1.5 to 3	400
QMS-00397	18-40	QSR-900-A-337 & QWF-SL-18-40-K	41 to 47	0.75 to 1.5	20
QMS-00396	7.5-18	QSR-900-A-337 & QWF-SL-7.5-18-N-R	33 to 39	2 to 3.5	400

1200mm Prime Focus Reflectors (457mm focal length):					
QMS Ref	Frequency (GHz)	Catalogue No.	Gain (dBi)	Beamwidth (3dB)	Power c.w. (W)
QMS-00264	2-8	QSR-1200-A-457 & QWF-SL-2-8-N-R	25.5 to 34.7	2.5 to 8	400
QMS-00277	8-12	QSR-1200-A-457 & QSF-SL-8-12-S-R	37 to 41	1.4 to 2	40
QMS-00011	2-18	QSR-1200-A-457 & QWF-SL-2-18-S-R	24.5 to 38	2 to 9	20
QMS-00913	2-18	QSR-1200-A-457 & QWF-DL-2-18-S-R	22.6 to 41.7	0.9 to 8.4	20
QMS-00266	6.5-18	QSR-1200-A-457 & QWF-SL-6.5-18-N-R	35.3 to 41.8	1.5 to 2.5	400
QMS-00393	7.5-18	QSR-1200-A-457 & QWF-SL-7.5-18-N-R	37 to 44	1 to 2.2	400
QMS-00272	18-40	QSR-1200-A-457 & QWF-DL-18-40-K-R	44 to 48.7	0.5 to 1	20

1800mm Prime Focus Reflectors (457mm focal length):					
QMS Ref	Frequency (GHz)	Catalogue No.	Gain (dBi)	Beamwidth (3dB)	Power c.w. (W)
QMS-00406	1-2	QSR-1800-A-755 & QWF-SL-1-2-N	22.5 to 28.7	6 to 11	500
QMS-00801	2-4	QSR-1800-T4A-755 & QWF-SL-2-4-N-R	28.2 to 34.6	7.6 to 8.1	100
QMS-00816	2-8	QSR-1800-A-755 & QWF-SL-2-8-N-R	37.2 to 40.9	1.5 to 4	400
QMS-00300	2-18	QSR-1800-A-755 & QWF-DL-2-18-S-R	28 to 42	0.7 to 6	40

700mm Reflectors:						
QMS Ref	Focus Type	Frequency (GHz)	Catalogue No.	Gain (dBi)	Beamwidth (3dB)	Power c.w. (W)
QMS-00733	Offset	0.9-18	QSR700-A-OST & QWH-DL-0.9-18-S-SG-R	17.5 to 34.5	1.5 to 34 (Az) 1.5 to 27 (El)	40
QMS-00372	Offset	2-18	QSR700-A-OST & QWH-DL-2-18-S-SG-R	16.7 to 38.2	2 to 13.2 (Az) 1.9 to 1.5 (El)	40
QMS-00339	Prime	2-8	QSR-700-A-337 & QWF-SL-2-8-N-R	20.2 to 29.5	3 to 13	500
QMS-00621	Prime	6.5-18	QSR-700-A-337 & QWF-SL-6.5-18-N-R	30.5 to 37.8	2 to 4	400

0.5 - 2 GHz Prime Focus Reflectors:					
QMS Ref	Diameter (mm)	Catalogue No.	Gain (dBi)	Beamwidth (3dB)	Power c.w. (W)
QMS-00405	1400 (P)	QSR-1400-A-546 & QWF-SL-0.5-2-N	14 to 24	6 to 35	400
QMS-00455	3000 (P)	QSR-3000-A-1207 & QWF-SL-0.5-2-N-R	20.8 to 30	5.8 to 13.3	400



HIRF ANTENNAS

About our HiRF Antennas

Steatite's family of eight antennas covering the frequency range 0.4 - 18 GHz are capable of reaching ultra-high field strengths in the near field, that are not attainable using traditional systems. Steatite uses antenna arrays, lenses and extended gain antennas to achieve this performance.

Steatite HiRF antennas are able to focus RF energy at short distances from the aperture. 3 kV / m at one metre can be achieved in free field tests with 3 dB spot sizes 150mm or greater. Focussing is achieved by using dielectric lenses or by dividing the aperture up into four cophased smaller horn antennas.

Various mounting options are available ranging from fixed-mount to variable geometry. As with other Steatite products, bespoke designs or modifications may be accommodated.



QMS No.	Frequency (GHz)	Catalogue No.	Gain at 1m (dBi)	VSWR (Typical)	Peak Power (W)	Connector
QMS-00694	0.4 to 1	QPA-SL-0.4-1-A-SG · 700 V/m at 1 metre with an input power of 1.1 kW	11.5 to 15.5	<1.7:1	13kW	7:16 DIN
QMS-00719	1 to 1.6	QPA-SL-1-1.6-A-SG · 3,000 V/m at 1 metre with an input power of 3.8 kW	18.9 to 20.6	<1.5:1	13kW	7:16 DIN
QMS-00722	1.5 to 2.6	QPA-SL-1.5-2.6-A-SG · 3,000 V/m at 1 metre with an input power of 2.8 kW	20.3 to 22.0	<1.5:1	13kW	7:16 DIN
QMS-00116 & QMS-00494	2.6 to 4	QSH-SL-2.6-4-C-SG-R · 3000 V/m at 1 metre with an input power of 2.85 kW	19.6 to 22.2	<1.5:1	10kW	SC
QMS-00748	4 to 6	QSH-SL-4-6-N-22-R · 3000 V/m at 1 metre with an input power of 2.3 kW	21.2 to 22.4	<1.5:1	5kW	N
QMS-00749	6 to 8	QSH-SL-6-8-N-22 · 3000 V/m at 1 metre with an input power of 2.0 kW	21.4 to 22.5	<1.5:1	5kW	N
QMS-00171	8 to 12	QSH-SL-8-12-F-23 · 3000 V/m at 1 metre with an input power of 2.5 kW	27.8 to 28.9	<1.15:1	10kW	WG16 (WR90) UBR100
QMS-00199	12 to 18	QSH-SL-12-18-F-23 · 3000 V/m at 1 metre with an input power of 2.1 kW	21.5 to 24.3	<1.5:1	10kW	WG18 (WR62)



SINUOUS ANTENNAS

About our Sinuous Antennas

Steatite supplies COTS and custom designed Dual Linear and Dual Circular Polarised, sinuous antennas for Direction Finding, ELINT, RWR and ESM airborne, sea and ground based applications.

Steatite's family of sinuous antennas simultaneously handle signals of any two orthogonal linear polarisations, and in some cases, simultaneous left and right handed circular polarisations. This provides intercept opportunities for a wide range of arbitrarily polarised signals, from devices also giving a wide bandwidth and broad beamwidth.

The sinuous antennas can also be used as feeds for reflector antennas where they give the advantage of a stable phase centre across the frequency band. As with other Steatite products, bespoke designs or modifications may be accommodated.



QMS No.	Frequency (GHz)	Catalogue No.	Polarisation	Power c.w. (W)	VSWR (Typical)	Gain (dBi)	Beamwidth (3dB)	Isolation
QMS-00035	0.2 to 2	QSI-DL-0.2-2-S-SG	Dual Linear	10	<3.0:1	-4.2 to 3.6	91.6 to 69°	>35
QMS-00037	0.4 to 2	QSI-DL-0.4-2-N-SG-R	Dual Linear	2	<3.6:1	1.3 to 6.4	62 to 48°	>34
QMS-00360	0.5 to 3	QSI-DL-0.5-3-S-SG-R	Dual Linear	2	<2:1	-0.2 to 5.8	56 to 96°	>40
QMS-00040	0.7 to 4	QSI-DL-0.7-4-S-SG	Dual Linear	10	<2.6:1	0 to 4.1	55 to 94°	>34
QMS-00015	2 to 18	QSI-DL-2-18-S-SG	Dual Linear	1	<3.2:1	-3.8 to 4.4	64 to 109°	>32
QMS-00488	2 to 24	QSI-DL-2-24-S-SG	Dual Linear	2	<3:1	-8 to 3	145 to 60°	>30
QMS-00046	0.5 to 4	QSI-DC-0.5-4-S-SG-R	Dual Circular	2	<1.5:1	-6 to 6 dBiC	62 to 102°	-
QMS-00043	0.7 to 4	QSI-DC-0.7-4-S-SG	Dual Circular	2	<1.4:1	-1 to 2.2 dBiC	102 to 56°	-
QMS-00044	2 to 18	QSI-DC-2-18-S-SG-L	Dual Circular	2	<2:1	-5.2 to 2.6 dBiC	42.6 to 95°	-



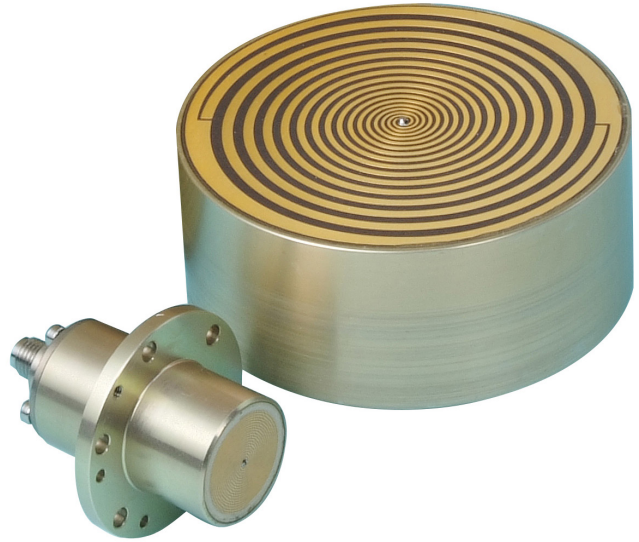
SPIRAL ANTENNAS

About our Spiral Antennas

Steatite's COTS cavity-backed spiral antennas cover the frequency range from 0.5 to 42 GHz and provide wideband performance with left or right hand circular polarisation.

The performance of Steatite's spiral antennas provides broad beamwidth with low squint, smooth radiation patterns and purity of circular polarisation. Typical airborne and ground based applications include 360° Direction Finding, Spectrum Management, RWR and ESM.

Steatite provides custom designed spiral antennas and if required, integrated lensed radomes to improve performance.



QMS No.	Frequency (GHz)	Catalogue No.	Gain (dBiC)	Beamwidth (3dB)	VSWR (Typical)	Power c.w. (W)	Connector
QMS-00767	0.5 to 8	QSP-RC-0.5-8-S-SG	-6.5 to 1.4 dBiL	48 to 139	<1.4:1	2	SMA
QMS-00314	0.5 to 22	QSP-RC-0.5-22-S-SG	0 to 5	60 to 115	<1.5:1	2	SMA
QMS-00762	1 to 18	QSP-RC-1-18-S-SG-R	0 to 7	20 to 112	<2.5:1	2	SMA
QMS-00760	2 to 18	QSP-RC-2-18-S-SG-R	1.3 to 5.3	53 to 142	<2.5:1	1	SMA
QMS-00049	18 to 42	QSP-RC-18-42-K-SG	1 to 4.2	47 to 94	<2.5:1	2	K
QMS-00051	18 to 42	QSP-RC-18-42-K-SG-L	2.2 to 6.2	30 to 80	<2.5:1	2	K

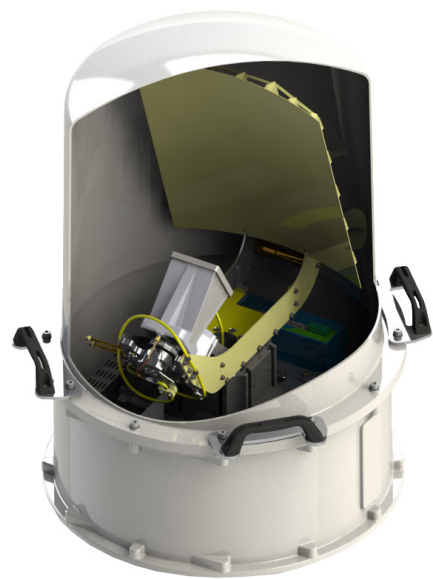
Left-hand circular polarisation also available.

SPINNING DF ANTENNAS

About our Spinning Antennas

Steatite provides COTS and custom designed 0.5 to 18 GHz direction finding and omnidirectional high performance spinning antenna subsystems.

The antennas are mounted on high speed rotating direct drive positioners with complex scan control and housed in RF-transparent, low-loss radomes. Cylindrical paraboloid reflectors are used, which provide a narrow azimuth beamwidth with broad elevation coverage.



Part Numbers	QMS-00328	QMS-00649	QMS-00650
Frequency (GHz)	0.5 to 18 Catalogue No: QEL-ST-0.5-18-N-SG-R	1 to 18 Catalogue No: QEL-ST-1-18-S-HG-R	2 to 18 Catalogue No: QEL-ST-2-18-N-SG-R
Gain (dBi)	-2 to 22.1 - DF & -2.4 to 6.4 - Omni	10 to 23	13 to 24
Antenna Type	Reflector and Omni-directional	Cylindrical paraboloid	Cylindrical paraboloid
Polarisation	Horizontal, Vertical or +/- 45°	Horizontal, Vertical or +/- 45°	Horizontal, Vertical or +/- 45°
Azimuth beamwidth°	3.3 to 87	3 to 33	4 to 30
Elevation beamwidth°	15.3 to 81 - DF & 11 to 102 - Omni	42 to 20	20 to 35
Angular resolution°	<0.1	<0.1	<0.1
VSWR (Typical)	<2.5:1 - DF & <3.6:1 - Omni	<2:1	<2.5:1
Rotational Velocity	200 rpm max	200 rpm max	200 rpm max

OTHER STEATITE BUSINESS UNITS

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TECHNOLOGY FOR EXTREME ENVIRONMENTS

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