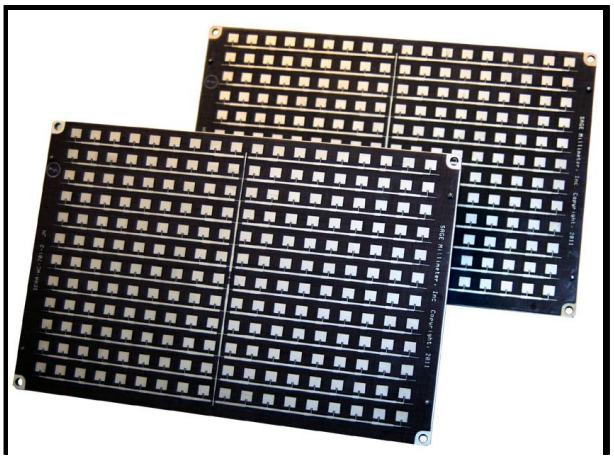
CERNEXWAVE

Microstrip Patch Array Antennas

FEATURES:

- Frequency coverage:18 to 110GHz
- Coaxial and rectangular waveguide interfaces
- Compact size and center fed
- Various beamwidth and low sidelobe levels
- Low cost in volume



APPLICATIONS:

- Communication Systems
- Radar systems
- Sensor heads

DESCRIPTION:

CAP Series

CAP series microstrip patch antennas are offered in either coaxial or rectangular waveguide interfaces. These microstrip patch array antennas are offered in linear or circular polarized. These antennas are constructed with higher performance and low loss soft microwave substrates. Various power distribution arrangements, such as corporate-fed, are implemented to achieve the best aperture efficiency and antenna performance. These patch array antennas offer high gain and very low side lobes. While the designs with optional radome configuration are available for water/dust proof, the standard microstrip patch arrays offered are without radome to allow customers to integrate them into their own enclosures.

SPECIFICATIONS:

Parameters	Specifications	Technical Remarks
Frequency Range	18.0 to 110 GHz	Other frequency range available upon request.
Interface	Coax or Rectangular	Specify when ordering.
Number of Element, Horizontal	4 to 16	The number of elements decides beamwidth.
Number of Element, Vertical	4 to 16	The number of elements decides beamwidth.
Operating Bandwidth	Typically 2% of Center Operation Frequency	This is a typical value. Most microstrip patch array antennas can operate with wider bandwidth with some performance degradation.
Half Power Beamwidth, Horizontal	30 to 4 Degrees	The beamwidth is number of element related.
Half Power Beamwidth, Vertical	30 to 4 Degrees	The beamwidth is number of element related.
Antenna Gain Range	14.0 to 30.0 dB	The gain is number of element related.
Side Lobe Level	20 dB Typical	The side lobe level is number of element and feed structure related.
Cross Polarization (Linear Only)	20 dB Typical	This is a typical value. This is feed structure related.
Return Loss	15 dB	This is a typical value. This is operating bandwidth depended.

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HOW TO ORDER:

Specify Model Number CAP – LF HF GN-BW-C-P-XX

LF:	Low End Frequency	C:	C for Coax, W for Waveguide
HF:	High End Frequency	P:	Polarization: L for Linear; C for Circular
GN:	Gain	XX:	To be specified by the factory
BW:	3dB Beamwidth in degree		

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