QUINSTAR
TECHNOLOGY, INC.

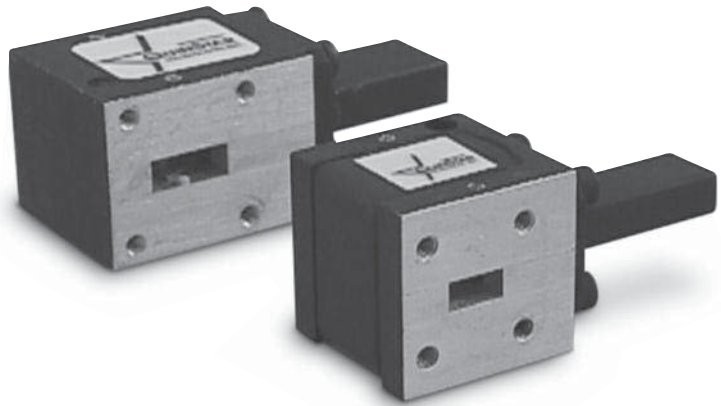.............................**Fullband Junction Circulators and Isolators**
QJE/QJF

Characteristics

♦ Full Waveguide Band
♦ Compact
♦ High Isolation
♦ Low Insertion Loss

Product Description

QuinStar Technology's **QJE** series **fullband junction circulators** and **QJF** series **fullband junction isolators** are available in two waveguide bands covering the frequency range of 18 to 40 GHz. These H-plane three-port Y-junction ferrite devices feature high isolation, low insertion loss and full waveguide bandwidth.

Junction circulators and isolators are used to provide load isolation in a wide variety of components including Gunn oscillators and amplifiers, upconverters and down-converters, power combiners, and also as duplexers at the antenna ports of millimeter-wave transceiver systems. They are also ideally suited for broadband or swept frequency applications.

Specifications

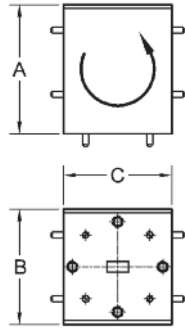| FREQUENCY BAND	K	Ka
Frequency (GHz)	18-26.5	26.5-40
Waveguide Size	WR-42	WR-28
Bandwidth (GHz min)	Full	Full
Isolation	20	18
Insertion Loss (dB max)	0.4	0.6
VSWR	1.25:1	1.3:1
Power Rating (W max)	5	4

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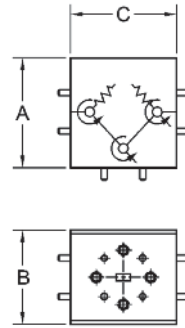TECHNOLOGY, INC.

.... **Precision Junction Circulators and Isolators**
QJY/QJI

Outline Drawings/Mechanical Specifications

Single-Junction Circulators and Isolators
(round flange pattern shown)

Three-Junction Circulators
(round flange pattern shown)

FREQUENCY BAND	WAVEGUIDE SIZE	FLANGE PATTERN	SINGLE JUNCTION OUTLINE DIMENSIONS, inches/mm			THREE-JUNCTION OUTLINE DIMENSIONS, inches/mm		
			A	B	C	A	B	C
K	WR-42	UG-595/U	1.20/30.5	0.88/22.4	1.00/25.4	1.50/38.1	1.20/30.5	2.00/50.8
Ka	WR-28	UG599/U	0.90/22.9	0.80/20.3	0.90/22.9	1.25/31.8	1.20/30.5	1.50/38.1
Q	WR-22	UG-383/U	1.45/36.8	1.20/30.5	1.13/28.7	1.25/31.8	1.20/30.5	1.50/38.1
U	WR-19	UG-383/U	1.45/36.8	1.20/30.5	1.13/28.7	1.25/31.8	1.20/30.5	1.50/38.1
V	WR-15	UG-385/U	1.05/26.7	0.85/21.6	1.00/25.4	1.14/29.0	0.98/24.9	1.10/27.9
E	WR-12	UG-387/U	1.05/26.7	0.85/21.6	1.00/25.4	1.14/29.0	0.98/24.9	1.10/27.9
W	WR-10	UG-387/U	1.05/26.7	0.85/21.6	1.00/25.4	1.14/29.0	0.98/24.9	1.10/27.9

Ordering Information

Model Number QJ_ - AB CD E F

model prefix
  Y = circulator
  I = isolator

center frequency rounded to nearest GHz
  (A0 = 100 GHz, A1 = 101 GHz,
  B0 = 110 GHz, etc.

bandwidth rounded to nearest GHz

waveguide band designator
  K = K-band   V = V-band
  A = Ka-band   E = E-band
  Q = Q-band   W = W-band
  U = U-band

number of junctions
  1 = single
  3 = three (circulators only)

86

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