# RADITEK inc Component Presentation









#### RADITEK inc

- RADITEK was founded in 1993
- Founders:
- Malcolm Lee (President and CTO)
- Peter Corbett (COO)
- Manufacturing Telecom and Wireless
  - Components
  - Active Sub Assemblies
  - Systems for Satcom, Terrestial Microwave



#### RADITEK inc

- PASSIVE COMPONENTS
- Isolators and Circulators
  - High power coax, Lumped Element, Stripline drop-in, microstrip and waveguide to 90GHz.
- Splitters, Combiners and Couplers
  - Coax, multi way, couplers, high power etc
- Filters
  - Combline, SAW, waveguide, diplexers etc

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#### Contents...

- Section 1 Isolators and Circulators
- Section 2 Filters (Cavity, Combline etc)
- Section 3 Broadband couplers and splitters

#### ISOLATORS & CIRCULATORS

Section 1

RADITEK inc

## RADITEK has the widest range of Isolators & Circulators of anyone in the word

- Isolators are typically used to protect solid state amplifiers from being destroyed by reverse power
  - Isolators & Circulators come in 5 main types

Stripline, Microstrip, Coaxial, Waveguide, Lumped Element.
RADITEK SUPPLIES THEM ALL

**FREQUENCIES:** 20 MHz to 130 GHz

**POWERS:** mille Watts to KILO Watts

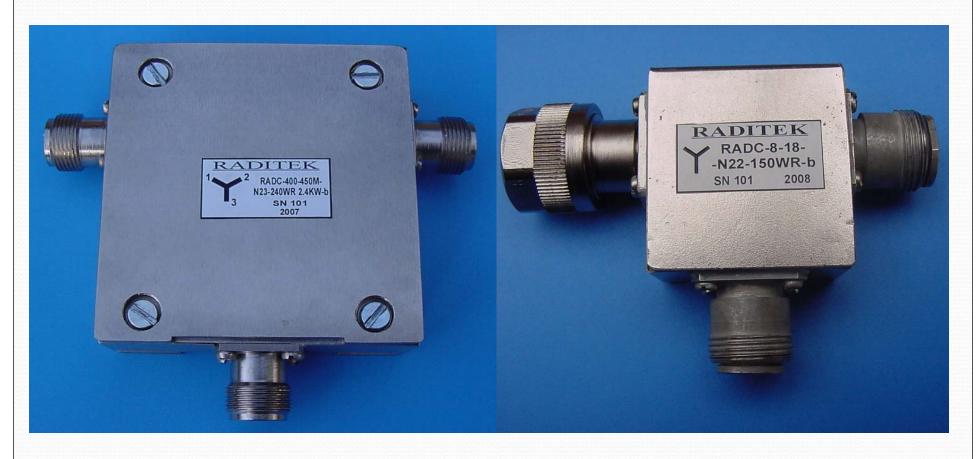
#### Isolator & Circulator products:

- Microstrip drop-in-
  - Many models: coverage 2 to 77GHz
- Stripline drop-in-
  - "SS" model, Samarium Cobalt side magnets to 3.8GHz
    - Medium IMD, to 200W power
  - "TT" model, Samarium Cobalt top magnets
  - 'TW" model, new high volume, low cost
- Coaxial (connectorized to mm wave)
  - SMA, N, K connectors >45GHz
- RLEI (miniature, SMT, lumped element)
  - 5mm, 7mm many Cell bands standard frequencies
- Waveguide to mm wave (to >100GHz) frequencies



#### Mhy RADITEK?

Probably the widest range of high performance isolator and circulator products, In the world.....COAXIAL Examples....To MW pulsed power!



400-450MHz Band High Power 2.4KW

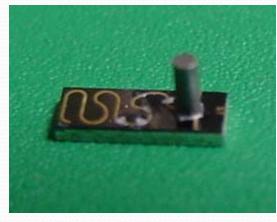
8 to 18GHz high power (150W)

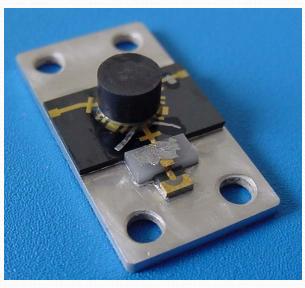
## Microstrips:



Isolators and circulators from 3 GHz to >80GHz

77GHz Microstrip (below)





Polished ferrite:
Thin film Gold over copper
Metallization
For Gold wire, ribbon or
Solderable tabs

#### High power circulators...



#### Winning isolator products...



World's top selling 350MHz (available in 250-500MHz band) Drop-in



13-16GHz coaxial

**Dual TD-SCDMA isolator** 

2.010-2.025-

fc-10WR

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RC-SS-

2.010-2.025-

fc-10WR

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### Waveguide...



50-52GHz 1W isolator





7.25-7.75GHz Circulator

IN OUT RADI-7.25-7.75 WR112-1WR-d

#### Stripline models GSM band with 30dB attenuator load

0707



869-894MHz isolator 10W load



2.4-2.7GHz circulator

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## **Filters**

Section 2

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#### Filters..

- High Q, Combline
  - Includes diplexers
  - Dielectric loaded (for smaller size)
- High Q, Cavity filters
  - Includes diplexers
  - Dielectric loaded (for smaller size)
- Ceramic filters and diplexers
- SAW (limited to <u>standard frequencies</u> only, in small quantity, specials in high volume only)

## Cavity filters (high performance)



3.5GHz high Q diplexer



RADITEK
RBPF-5031-5090.7M-S3-10W-F
SN# 060817001
0634

5GHz Band pass filter

## Broadband couplers & Combiner/splitters

Section 3

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### Broadband Couplers..

- Various coupling factors (1->30dB)
- Quadrature Hybrids (3dB-o°-9o°)
- Low and High power (100W)
- Octave and multi octave bandwidths
  - Coaxial (connectorized)
    - SMA, N connector etc.

## Broadband couplers..



30dB coupler, 1-2 GHz, 50W coax

Stripline drop-in broad band Quad hybrid (0.4-3GHz)

If we are not already there....

Please tell us how we can be your most favored supplier, partner?

If you didn't see the product you were looking for, still ask us, we may be developing something similar as a special! Contact your representative...

please visit us often at: WWW.raditek.com