

# Overcome Your 5G Network Deployment Challenges

MICROLAB IS A LEADING COMPONENT AND INTEGRATED SOLUTION PARTNER RELIED ON FOR TACKLING THE CHALLENGES WITH 5G NETWORK DEPLOYMENTS.

## PARTNER WITH MICROLAB TO:

### MAINTAIN DEPLOYMENT SCHEDULES

- MOST POPULAR PRODUCTS AVAILABLE IN STOCK
- LARGE DISTRIBUTION NETWORK FOR ADDITIONAL PRODUCT AVAILABILITY OPTIONS
- MANY COMPONENTS PRE-APPROVED BY MAJOR CARRIERS AND NEUTRAL HOSTS

### REDUCE DEPLOYMENT COSTS

- FUTURE-PROOF YOUR DEPLOYMENT WITH WIDEBAND COMPONENTS
- BOM REVIEW TO IDENTIFY THE MOST COST-EFFECTIVE SOLUTIONS
- HIGH RELIABILITY COMPONENTS TO MINIMIZE DELAYS AND FAILURES
- TIMELY CUSTOMER SUPPORT

### OPTIMIZE SYSTEM PERFORMANCE

- DESIGN CONSULTATION FROM EXPERIENCED APPLICATION ENGINEERS
- INDUSTRY-LEADING RF PERFORMANCE (LOW INSERTION LOSS AND RETURN LOSS, HIGH ISOLATION)
- GUARANTEED LOW PASSIVE INTERMODULATION (PIM)
- IBWAVE AND RANPLAN SUPPORT

**PRODUCTS (617 MHZ TO 5925 MHZ) ARE AVAILABLE IN ALL THE FOLLOWING CATEGORIES:**

[ANTENNAS»](#)

[ATTENUATORS »](#)

[DIRECTIONAL COUPLERS»](#)

[DC BLOCKS»](#)

[GPS REPEATERS / SPLITTERS»](#)

[HYBRID COMBINERS»](#)

[CABLE ASSEMBLIES»](#)

[MULTI-BAND COMBINERS»](#)

[INTEGRATED SOLUTIONS](#)

[SPLITTERS»](#)

[TAPPERS»](#)

[TERMINATIONS»](#)

## [ATTENUATORS](#)

ATTENUATORS ARE AVAILABLE WITH MULTIPLE ATTENUATION VALUES FOR FLEXIBILITY IN BALANCING RF POWER IN EACH BRANCH OF THE NETWORK.

- RESISTIVE ATTENUATORS FROM DC - 6 GHz
- POWER RATING FROM 2W-100W
- DESIGNED FOR OPERATION IN WIDE TEMPERATURE RANGE



## [HYBRID COUPLERS ET MATRICES](#)

COMPACT HYBRID COUPLERS AND MATRICES WITH HIGH PORT-TO-PORT ISOLATION AND LOW DISSIPATIVE LOSS TO EFFICIENTLY COMBINE AND DISTRIBUTE MULTIPLE CARRIERS TO MULTIPLE ANTENNA FEEDS FOR DEPLOYMENTS.

- WIDEBAND FROM 350 MHz - 5925 MHz
- HIGH ISOLATION AND LOW VSWR
- POWER RATING OF 100 WATT PER INPUT



## [DC BLOCKS](#)

DC BLOCKS TO PREVENT FLOW OF INDUCED DIRECT CURRENT (DC) ALONG THE INNER/OUTER CONDUCTOR OF TRANSMISSION LINE WHILE PERMITTING UNIMPEDED FLOW OF ULTRA-WIDEBAND RF SIGNALS.

- 250 MHz - 6 GHz
- 500 W AVERAGE POWER RATING
- 3 kV HIGH VOLTAGE RATING



## [MULTI-BAND COMBINERS ET FILTERS](#)

WIDE RANGE OF BROAD AND NARROWBAND FILTERS, DIPLEXERS AND TRIPLEXER TO ADDRESS EFFICIENT COMBINING OF MULTIPLE BANDS FOR CARRIER AGGREGATION IN SMALL CELLS AND DAS

- COMBINING SUPPORT FOR ALL COMMERCIAL WIRELESS BANDS
- 50 dB CROSS BAND ISOLATION
- RAPID PROTOTYPE FOR CUSTOM SITE-SPECIFIC COMBINER



## [INTEGRATED SOLUTIONS](#)

MICROLAB'S BROAD CATALOG OF PRODUCTS ALLOWS RAPID CREATION OF SPECIAL INTEGRATED SOLUTIONS TO ENABLE FAST AND EFFICIENT INTEGRATION OF PASSIVES IN A TURNKEY SOLUTION FOR IN-BUILDING WIRELESS, OUTDOOR DAS, AND SMALL CELL APPLICATIONS. ENCLOSURE OPTIONS INCLUDE RACK MOUNTS AND NEMA RATED WALL MOUNTS.

- LOW LOSS ARCHITECTURE FOR MAXIMUM RF TRANSMISSION
- SIGNAL CONDITIONING SOLUTIONS FOR INDEPENDENT UPLINK AND DOWNLINK VARIABLE ATTENUATION
- FULLY TESTED TO ENSURE SPECIFICATION COMPLIANCE



## [DIRECTIONAL COUPLERS AND TAPPERS](#)

DIRECTIONAL COUPLERS AND TAPPERS SPLITS RF SIGNALS IN UNEQUAL FIXED RATIOS WITH MINIMAL REFLECTIONS OR DISSIPATIVE LOSS OVER WIDE BANDWIDTHS FOR SIGNAL DISTRIBUTION.

- EXCELLENT COUPLING FLATNESS ACROSS 350-5925 MHz
- MULTIPLE AVAILABLE SPLIT RATIOS FROM 2:1 TO 1000:1
- VERY LOW DISSIPATIVE LOSS



## [SPLITTERS](#)

WIDE-BAND SPLITTERS ARE AVAILABLE IN 2, 3- AND 4-WAY CONFIGURATIONS AS LOW PIM, HIGH POWER, LOW INPUT RETURN LOSS AIRLINE REACTIVE SPLITTERS AND LOW COST, HIGH ISOLATION WILKINSON SPLITTERS FOR SIGNAL DISTRIBUTION

- FREQUENCY RANGE OF 617-5925 MHz
- PIM RATED WILKINSON SPLITTERS
- OUTDOOR RATED FOR HARSH ENVIRONMENTS



## [TERMINATIONS](#)

MICROLAB LOW PIM TERMINATIONS SUPPORT 350-6000 MHz WIDEBAND APPLICATIONS LIKE TERMINATING UNUSED PORTS OF 5G NR SMALL CELLS AND UNUSED OUTPUTS IN D-RAN NETWORK TO DISSIPATE RF POWER WITHOUT REFLECTION OR ADDING PIM TO THE NETWORK.

- CONVENIENT SIZE FOR EASY INSTALLATION
- RESISTIVE ATTENUATORS DC-12 GHz
- POWER RATINGS FROM 1W TO 200W



## [CABLE ASSEMBLIES](#)

JUMPER CABLES ARE BUILT FOR CONSISTENT LOW PIM PERFORMANCE OVER DC-6 GHz. DESIGNED FOR USE IN SYSTEMS WHERE EXCELLENT ELECTRICAL PERFORMANCE AND MECHANICAL RELIABILITY ARE PARAMOUNT.

- PRE-FABRICATED AND PRE-TESTED CABLE ASSEMBLIES WITH 0.141, 0.25 AND 0.5 INCH CABLES
- AVAILABLE WITH NEX10, 2.2-5, 4.3-10, 7-16, OR N-TYPE CONNECTOR COMBINATIONS
- PLENUM RATED CLASS CMP



## [GPS REPEATERS ET GPS GNSS SPLITTERS](#)

MICROLAB PROVIDES 5G-READY NETWORK TIMING AND SYNCHRONIZATION COMPONENTS. THE MICROLAB DIGITAL GPS REPEATER SYSTEM (GPSR) UTILIZES PATENT-PENDING DIGITAL SKY TIMING TECHNOLOGY™ THAT UNIQUELY MEASURES DELAY OFFSET FOR BASEBAND UNIT (BBU) TIMING ADJUSTMENT WITH LESS THAN 100 NS DELAY ACCURACY REQUIRED IN 5G DEPLOYMENTS.

- IMPROVED FIBER OPTIC SIGNAL TRANSPORT VIA INDUSTRY STANDARD CPRI PROTOCOL

