



## RF – Radio Frequency

Radio-frequency (RF) and microwave (MW) circuits can be found in countless wireless products from handheld devices for medical and industrial applications to advanced communications systems for base stations, radar and global positioning. The success of these high-speed products begins at the product design stage when the PCB laminate materials are selected. NCAB Group works with the product design team to insure that the project's cost/performance targets can be met by providing information on material options, relative costs and DfM considerations. Once the design has been completed, NCAB Group follows the boards from prototype through to production where key process variables such as line widths and dielectric spacing are measured and controlled to insure the product meets the designed requirements and delivers consistent performance throughout the products life cycle.

### RADIO FREQUENCY PCBs – TECHNICAL SPECIFICATION

FEATURE	NCAB'S TECHNICAL SPECIFICATION
Number of layers	2-20 layers
Technology highlights	Controlled impedance, low loss materials, miniaturization
Materials	Low loss / low Dk, higher performance FR-4, PPO, Teflon, hydrocarbon / ceramic filled
Dielectric thickness	0.1mm – 3.0mm
Thermal conductivity	Higher performance FR-4 / under 1 W/mK
Profile method	Routing, v-score
Copper weights (finished)	½ to 6 ounce
Minimum track and gaps	0.075mm
Metal core thickness	½ to 6 ounce
Maximum dimensions	580mm x 1010mm
Surface finishes available	ENIG, IAg, ISn, OSP, HASL (Lead-free)