Ohmega Technologies is now offering OhmegaPly® NiP thin-film resistive material with a sheet resistivity of 377 ohms per square. Target applications include but are not limited to: mm-Wave Antennas, Antenna Arrays, Radar Absorbing Materials (RAM), Resistive Cards (R-cards), High Impedance Surfaces (HIS) and Frequency Selective Surfaces (FSS).

OhmegaPly is laminated to various dielectrics and can be etched to create repetitive, planar patterns using standard PCB photolithography techniques. Technological advantages include reduced thickness, reduced weight, increased bandwidth and improved performance covering wider angles of incidence.

OhmegaPly® is available directly from Ohmega Technologies, Inc. as a resistive foil, (OhmegaPly RCM®) or laminated to a variety of standard (FR4, Polyimide) substrate materials. It can also be purchased laminated to a variety of microwave substrates directly from other sources including Arlon, Rogers and Taconic.

Quad Ridge Horn designed with OhmegaPly resistive film to reduce sidelobes. Courtesy of Toyon Research Corporation in conjunction with Naval Air Warfare Center Weapons Division (NAWCWD) under contract N68335-03-D-0147.

Charts: (a) Sidelobe reduction in E-plane when using OhmegaPly resistive film in Quad-Ridge Horn. (b) effect of resistive film in H-plane. Data courtesy of Toyon Research Corporation.