

The Global Market for Metamaterials

<https://marketpublishers.com/r/GDCD05DF661EN.html>

Date: January 2021

Pages: 117

Price: US\$ 1,375.00 (Single User License)

ID: GDCD05DF661EN

Abstracts

Metamaterials applications will represent a multi-billion market within the next decade with product advances in radar and lidar for autonomous vehicles, telecommunications antenna, 5G networks, coatings, vibration damping, wireless charging, noise prevention and more.

Metamaterials are artificially engineered structures with exceptional material properties (acoustic, electrical, magnetic, optical, etc.). They comprise arrays of resonators that manipulate electromagnetic waves or sound in ways not normally found in nature.

Possessing customized dielectric properties and tunable responses they allow for excellent flexibility in a range of applications, their use enabling the manipulation of fields and waves at a subwavelength scale.

Initial R&D in metamaterials has focused on cloaking and light manipulation, but the last few years has seen applications development in:

telecommunications

acoustics

sensors

radar imaging

optics (terahertz and infrared)

coatings & films

lidar systems for self-driving cars

medical imaging.

There are now over 30 metamaterials product developers worldwide, who have received >\$300 million in recent investment as the metamaterials market picks up again after a sluggish few years.

Report contents include:

Description of the global metamaterials market in 2020.

Global revenue estimates to 2030 by markets.

Stage of commercialization for metamaterials applications, from basic research to market entry.

Market drivers, trends and challenges, by end user markets.

Competitive landscape.

In-depth market assessment of opportunities for metamaterials in sound insulation, vibration damping, antennas, thermal management, wireless charging, transport communications, radar, sensors, autonomous vehicles, anti-reflective plastics, security screening, EMI, anti-reflection coatings, solar coatings, displays, soft materials and medical imaging.

In-depth profiles of 32 companies, including products, investments, partnerships and commercial activities. Companies profiled include Anywaves, Emrod, Echodyne, Inc., Evolv Technologies, Inc., Fractal Antenna Systems, Inc, Kymeta Corporation, Lumotive, Phononic Vibes srl, Metamaterial Technologies, Inc. and Metawave Corporation.

Detailed forecasts for key growth areas, opportunities and user demand.

Revenues and activities by region.

Markets targeted, by product developers and end users.

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