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Title: Single continuous terahertz laser source based radar cross section test device for testing different size target radar scattering sections, has inversion calculation module utilized for obtaining radar cross section

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Abstract: NOVELTY - The device has a carbon dioxide (CO2) laser pumping continuous terahertz laser (1) for outputting parallel beams by a chopper wave back to a splitting sheet (3). A signal output end a phase locking amplifier module (9-1) is connected with a computer (10) a data collecting card i.e. peripheral component interconnect-1716 (PCI-1716). An f-axis parabolic mirror (5-2) reflects a light beam. The computer includes an electric control variable beam controlling module and a target RCS inversion calculation module. The inversion calculation module is utilized for obtaining a RCS.

USE - Single continuous terahertz laser source based radar cross section (RCS) test device for testing different size target radar scattering sections.

ADVANTAGE - The device avoids measuring problem different target radar cross section size about 2.52 THz nm.

DESCRIPTION DRAWING(S) - The drawing shows a schematic view a single continuous terahertz laser source based radar cross section test device.'(Drawing includes non-English language text)'

CO2 laser pumping continuous terahertz laser (1)

Splitting sheet (3)

f-axis parabolic mirror (5-2)

Phase locking amplifier module (9-1)

Computer (10)

Derwent Class Code(s): T01 (Digital Computers); V08 (Lasers and Masers); W06 (Aviation, Marine and Radar Systems)

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