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Title: Terahertz continuous wave generator, has optical coupler used to apply optical signal, which is reflected from notch filter, and opto-electric converter that is used to photomix double side-band signals outputted through notch filter

Inventor Name(s): KIM S; KANG K; JUN D S

Patent Assignee(s): ELECTRONICS&TELECOM RES INST (ETRI)

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Abstract: NOVELTY - The generator has an optical circulator (50) used to transmit an optical signal inputted to an optical fiber amplifier (40) to a notch filter (60) and to transmit the optical signal reflected from the notch filter to an input part an optical intensity modulator (20). An optical coupler (10) is used to apply the optical signal, which is reflected from the notch filter and transmitted to the optical intensity modulator through the optical circulator. An opto-electric converter (OE converter) (70) is used to photomix double side-band (DSB) signals outputted through the notch filter.

USE - Terahertz continuous wave generator.

ADVANTAGE - The generator increases correlation between two wavelengths, so that the generator can reduce phase noise and increase frequency stability the generated signals.

DESCRIPTION DRAWING(S) - The drawing shows a schematic diagram a terahertz continuous wave generator.

Optical coupler (10)

Optical intensity modulator (20)

Optical fiber amplifier (40)

Optical circulator (50)

Notch filter (60)

Opto-electric converter (70)

Drawing:

Derwent Class Code(s): P81 (Optics); V07 (Fibre-optics and Light Control)

Derwent Manual Code(s): V07-F01A1; V07-G10D; V07-K01A; V07-K01C2

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