

Title (en)

CONICAL SCAN WEATHER RADAR

Title (de)

WETTERRADAR MIT KONISCHER ABTASTUNG

Title (fr)

RADAR MÉTÉOROLOGIQUE À BALAYAGE CONIQUE

Publication

EP 4127772 A1 20230208 (EN)

Application

EP 21779017 A 20210331

Priority

- US 202063002479 P 20200331
- US 202117163640 A 20210201
- US 2021025253 W 20210331

Abstract (en)

[origin: WO2021202797A1] A new measurement approach is disclosed that facilitates significantly smaller size, weight, and power (SWaP) spaceborne radar systems that can provide wide swath, high resolution observations. Multiple beams employed in the scan and the complex volume and/or surface backscatter signals of each beam is recorded. Each beam is electronically swept in azimuth where each beam is held at a constant incidence angle over the azimuth sector that covers the swath. Once the sweep is complete, the platform moves forward, by one along track pixel, and the sweep is repeated in order to provide continuous mapping of the volume and surface covered by the swath. Complex volume backscatter is recorded and mapped to each altitude layer to provide full mapping of the atmosphere.

IPC 8 full level

G01S 13/42 (2006.01)

CPC (source: EP)

G01S 13/422 (2013.01); **G01S 13/89** (2013.01); **G01S 13/955** (2013.01); **Y02A 90/10** (2017.12)

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

WO 2021202797 A1 20211007; EP 4127772 A1 20230208; EP 4127772 A4 20240410

DOCDB simple family (application)

US 2021025253 W 20210331; EP 21779017 A 20210331