Title (en)

MULTI-BEAM ANTENNA WITH MULTI-DEVICE CONTROL UNIT

Title (de)

MEHRSTRAHLANTENNE MIT MEHREINRICHTUNGS-STEUEREINHEIT

Title (fr)

ANTENNE MULTIFAISCEAU ÉQUIPÉE D'UN BLOC DE COMMANDE À DISPOSITIFS MULTIPLES

Publication

EP 2253046 A2 20101124 (EN)

Application

EP 09711078 A 20090211

Priority

• US 2009033774 W 20090211
• US 2753008 P 20080211

Abstract (en)

[origin: WO2009102774A2] RET antenna with motor and clutch assembly that is operative to mechanically disengage the DC motor and drive unit (also called the gear-motor unit) from the phase shifter adjustment shaft during a manual tilt operation. Disengaging the gear- motor unit removes the drag of the motor and the high gear ratio gear box from the phase shifter control rod making it easier to manually turn the phase shifter control knob. In addition, the clutch disengages the gear-motor without disengaging the position detector from the phase shifter control rod so that position calibration is not lost during manual tilt adjustment. When the manual tilt operation is completed, the mechanical tilt clutch enables the gear-motor unit to be reliably re-engaged with the phase shifter control rod for motorized electrical tilt operation without having to re¬ calibrate the position detector.

IPC 8 full level

H01Q 1/24 (2006.01); **H01Q 3/00** (2006.01); **H01Q 3/32** (2006.01); **H04W 16/28** (2009.01); **H04W 88/08** (2009.01)

CPC (source: EP KR)

H01Q 1/246 (2013.01 - EP); **H01Q 3/00** (2013.01 - KR); **H01Q 3/005** (2013.01 - EP); **H01Q 3/32** (2013.01 - EP)

Cited by

CN104170165A; WO2022050925A1; US10461419B2; US11128042B2

Designated contracting state (EPC)

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 SE SI SK TR

Designated extension state (EPC)

AL BA RS

DOCDB simple family (publication)

WO 2009102774 A2 20090820; **WO 2009102774 A3 20100114**; CA 2725886 A1 20090820; CA 2725886 C 20170627; CA 2725888 A1 20090820; CA 2725888 C 20180925; CN 102150325 A 20110810; CN 102150325 B 20140611; CN 102150374 A 20110810; CN 102150374 B 20150225; EP 2248272 A2 20101110; EP 2248272 A4 20130116; EP 2253046 A2 20101124; EP 2253046 A4 20130116; EP 2253046 B1 20201028; IL 207479 A0 20101230; IL 207479 A 20171231; IL 207480 A0 20101230; IL 207480 A 20160331; KR 101589580 B1 20160128; KR 20100122092 A 20101119; MX 2010008827 A 20101220; MX 2010008830 A 20101220; WO 2009102775 A2 20090820; WO 2009102775 A3 20100114

DOCDB simple family (application)

US 2009033773 W 20090211; CA 2725886 A 20090211; CA 2725888 A 20090211; CN 200980108711 A 20090211; CN 200980108722 A 20090211; EP 09709448 A 20090211; EP 09711078 A 20090211; IL 20747910 A 20100808; IL 20748010 A 20100808; KR 20107019946 A 20090211; MX 2010008827 A 20090211; MX 2010008830 A 20090211; US 2009033774 W 20090211