

Title (en)
Loudspeaker heat control with state observation

Title (de)
Lautsprecherwärmeregulierung mit Statusbeobachtung

Title (fr)
Régulation thermique de haut-parleur avec observation d'état

Publication
EP 2806656 B1 20160413 (EN)

Application
EP 13368015 A 20130521

Priority
EP 13368015 A 20130521

Abstract (en)
[origin: EP2806656A1] An Active Heat Controller (10) for controlling the temperature of a loudspeaker (12) connected to it, the Active Heat Controller (10) comprising a Dynamic Range Controller (14) operatively interposed, in use, between an input driving signal terminal (16) for the loudspeaker (12) and the terminals (26) of a voice-coil of the loudspeaker (12), the Dynamic Range Controller (14) being configured to variably attenuate the input driving signal as output at the voice-coil's terminals (20), the Active Heat Controller (10) comprising: a probe (28) operatively connected, and for applying a probe signal, to the terminals (26) of the loudspeaker's voice-coil (12) for estimating an instantaneous temperature of the voice-coil and being characterised by: a state observer (40) for estimating an instantaneous temperature of a magnet of the loudspeaker (12); and means (38) for controlling the instantaneous attenuation of the Dynamic Range Controller (14) in response to the estimated voice-coil and magnet temperatures.

IPC 8 full level
H04R 3/00 (2006.01)

CPC (source: EP)
H04R 3/007 (2013.01)

Cited by
CN110113694A; CN107702813A; GB2542643A; CN114630257A; CN113812170A; EP3480952A3; US9609450B2; US11221259B2; US11333622B2; US9794687B2; US12081929B2; WO2020223002A1; WO2023082159A1; WO2019129918A1; TWI698130B

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

DOCDB simple family (publication)
EP 2806656 A1 20141126; EP 2806656 B1 20160413

DOCDB simple family (application)
EP 13368015 A 20130521