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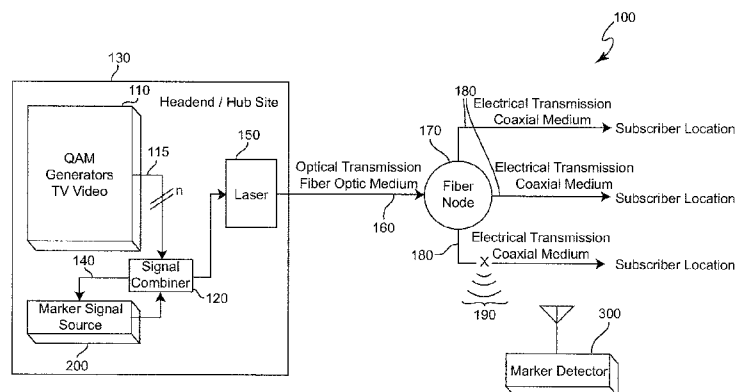


Figure 1A

(57) Abstract: Signal egress from a shielding flaw in a cable telecommunication system is detected, even where signals carried by the cable telecommunication system are quadrature amplitude modulated signals that statistically resemble broadband noise by generating a marker signal comprising a double side band, suppressed carrier signal in the fringes of contiguous frequency bands and at a power level which cannot cause perceptible interference with signals in those contiguous frequency bands. The separation of the sidebands comprising the marker signal can unambiguously identify the marker signal and can distinguish between different cable telecommunication systems installed in the same geographic area. The marker signal can be additionally coded by varying the frequency and/or amplitude of the modulating signal used to create the marker signal.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2012/032281**A. CLASSIFICATION OF SUBJECT MATTER****H04B 3/46(2006.01)i**

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

H04B 3/46; H02G 1/00; H01R 43/00; G01R 31/11; H01R 13/64; G01R 31/02; H04M 1/24; G01R 31/08

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) & Keywords: cable telecommunication system, marker signal, shielding flaw, monitoring power

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2008-0224712 A1 (ANTHONY JOSEPH PEYTON et al.) 18 September 2008 See para. 33; figure 1; and claim 1.	1-20
A	US 5978449 A (JACK NEEDLE) 02 November 1999 See column 5, lines 13-17; column 6, lines 48-63; figure 2; and claims 8, 16.	1-20
A	JP 2006-029801 A (HITACHI CABLE LTD.) 02 February 2006 See paras. 16-23; and figure 1.	1-20
A	KR 10-1021676 B1 (LIG NEX1 CO., LTD.) 17 March 2011 See paras. 78-87; and figure 5.	1-20
A	JP 07-240264 A (NEC CORP.) 12 September 1995 See paras. 9-11; and figure 1.	1-20



Further documents are listed in the continuation of Box C.



See patent family annex.

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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