

Title (en)
MULTIPLE VIEWING ELEMENTS ENDOSCOPE HAVING TWO FRONT SERVICE CHANNELS

Title (de)
ENDOSKOP MIT MEHREREN ANSICHTSELEMENTEN MIT ZWEI FRONTDIENSTKANÄLEN

Title (fr)
ENDOSCOPE COMPORTANT DE MULTIPLES ÉLÉMENTS DE VISUALISATION ET DEUX CANAUX DE SERVICE AVANT

Publication
EP 2996542 A1 20160323 (EN)

Application
EP 14798234 A 20140515

Priority
• US 201361824863 P 20130517
• US 201361828039 P 20130528
• US 2014038096 W 20140515

Abstract (en)
[origin: WO2014186521A1] An endoscope assembly has a tip that includes at least one front-pointing camera and at least one front illuminator associated therewith, at least one side -pointing camera and at least one side illuminator associated therewith, a first front service channel with a first exit point, and a second front service channel with a second exit point where the first and the second service channel exit points are located in close proximity on the front distal end of the tip. Further, an interior volume of the tip is in a range of 2.75 cm³ to 3.5 cm³, wherein each of the at least two viewing elements is configured to generate a field of view ranging from 120 to 180 degrees, a depth of field ranging from 3 to 100 mm, and a peripheral distortion of less than 80%.

IPC 8 full level
A61B 1/05 (2006.01); **A61B 1/00** (2006.01); **A61B 1/012** (2006.01); **A61B 1/06** (2006.01); **H04N 5/225** (2006.01)

CPC (source: EP US)
A61B 1/0008 (2013.01 - EP US); **A61B 1/00094** (2013.01 - EP); **A61B 1/00177** (2013.01 - EP); **A61B 1/00179** (2013.01 - EP);
A61B 1/00181 (2013.01 - EP); **A61B 1/012** (2013.01 - EP); **A61B 1/05** (2013.01 - EP US); **A61B 1/0623** (2013.01 - EP);
H04N 23/555 (2023.01 - EP)

Cited by
US10271713B2; US9667935B2; US10205925B2; US9943218B2; US10105039B2; US10524645B2; US9706908B2; US10064541B2;
US10412290B2; US10401611B2; US10542877B2; US11771310B2; US10663714B2; US11234581B2; US11966040B2; US9907462B2;
US9968242B2; US10376181B2; US10517464B2; US10779707B2; US11147469B2; US10078207B2; US10488648B2; US10634900B2;
US10908407B2; US11194151B2; US11529197B2; US11782259B2; US9949623B2; US10433715B2; US11229351B2; US11957311B2;
US10595714B2; US10993605B2; US11375885B2; US11672407B2; US10130246B2; US10292570B2; US10561308B2; US10898062B2;
US10912454B2; US11082598B2; US11311181B2; US10123684B2; US10258222B2; US10516865B2; US10791308B2; US11229348B2;
US11330238B2; US11883004B2

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

DOCDB simple family (publication)
WO 2014186521 A1 20141120; CN 105636500 A 20160601; CN 105636500 B 20180821; CN 109549613 A 20190402;
EP 2996542 A1 20160323; EP 2996542 A4 20170322; JP 2016524492 A 20160818; JP 2019058756 A 20190418; JP 2021100630 A 20210708;
JP 2023179608 A 20231219; JP 6466412 B2 20190206; JP 6859373 B2 20210414; JP 7361739 B2 20231016

DOCDB simple family (application)
US 2014038096 W 20140515; CN 201480040369 A 20140515; CN 201810844218 A 20140515; EP 14798234 A 20140515;
JP 2016514076 A 20140515; JP 2019001814 A 20190109; JP 2021051798 A 20210325; JP 2023172017 A 20231003