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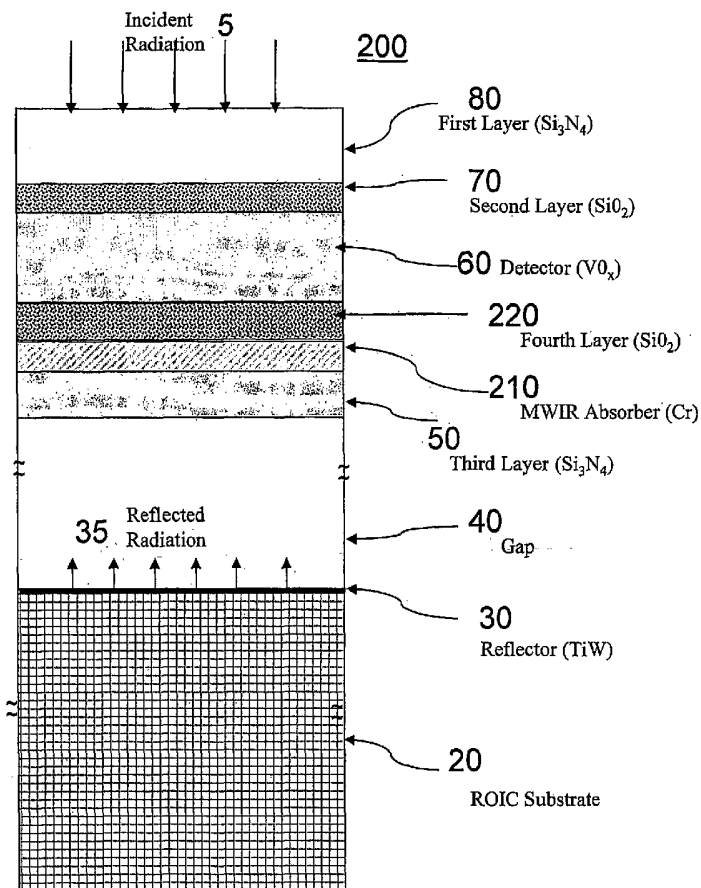
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- (71) Applicant (for all designated States except US): **BAE SYSTEMS INFORMATION AND ELECTRONIC SYSTEMS INTEGRATION INC** [US/US]; 65 Spit Brook Road, Nashua, New Hampshire 03061 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **GENECZKO, Jean-nie** [US/US]; 898 Maple Street, Carlisle, Massachusetts
- (74) Agents: **ASMUS, Scott, J.** et al.; Maine & Asmus, PO Box 3445, Nashua, NH 03061-3445 (US).
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(54) Title: MULTI-SPECTRAL UNCOOLED MICROBOLOMETER DETECTORS



(57) Abstract: A medium wave infrared (MWIR) uncooled microbolometer focal plane array (FPA) has multiple stacks (200) with at least one uncooled IR detector (60) of a single MWIR band and a MWIR band absorber (210) applied using standard silicon processing techniques.

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- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations
- of inventorship (Rule 4.17(iv)) for US only

Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT,

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US05/09526

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : H01L 27/146
 US CL : 250/338.1

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)
 U.S. : 250/338.1, 339.02

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

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

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5,811,815 A (MARSHALL et al.) 22 September 1998 (22.09.98), Fig. 2, column 1, line 10, column 5, line 28, column 6, lines 10-22 and 54-57, column 7, line 66 to column 8, line 9, column 8, lines 26-28, column 9, lines 3-25, column 10, lines 51-59, column 11, lines 17-35.	1-8,11,13-15,17,19,20
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Y	US 6,495,829 B1 (ODA) 17 December 2002 (17.12.02), Fig. 5, column 10, lines 44-45, column 11, lines 1-7.	9,10,12,16,18
Y	US 5,286,976 A (COLE) 15 February 1994 (15.02.94), column 1, line 56.	9,12
Y	US 5,808,350 A (JACK et al.) 15 September 1998 (15.09.98) Fig. 6a, column 7, lines 3-9.	10
Y		16,18

Further documents are listed in the continuation of Box C. See patent family annex.

* Special categories of cited documents:		"T"
"A"	document defining the general state of the art which is not considered to be of particular relevance	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"E"	earlier application or patent published on or after the international filing date	"X"
"L"	document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"O"	document referring to an oral disclosure, use, exhibition or other means	"Y"
"P"	document published prior to the international filing date but later than the priority date claimed	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
		"&"
		document member of the same patent family

Date of the actual completion of the international search 20 July 2005 (20.07.2005)	Date of mailing of the international search report 24 OCT 2005
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703) 305-3230	Authorized officer <i>Lydia Sewell For</i> Constantine Hannaher Telephone No. (571) 272-2437

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US05/09526

Continuation of B. FIELDS SEARCHED Item 3:

USPTO EAST BRS

search terms: mw mwir tiw infrared ir tin chrome medium wave long absorb\$3 bolomet\$3 microbolomet\$3 roic