

# Josep Altet Sanahujes

## List of Publications by Year in descending order

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73  
papers

687  
citations

687363

13  
h-index

713466

21  
g-index

73  
all docs

73  
docs citations

73  
times ranked

314  
citing authors

#	ARTICLE	IF	CITATIONS
1	Dynamic Surface Temperature Measurements in ICs. Proceedings of the IEEE, 2006, 94, 1519-1533.	21.3	64
2	Thermal coupling in integrated circuits: application to thermal testing. IEEE Journal of Solid-State Circuits, 2001, 36, 81-91.	5.4	56
3	Four different approaches for the measurement of IC surface temperature: application to thermal testing. Microelectronics Journal, 2002, 33, 689-696.	2.0	41
4	Electrothermal Design Procedure to Observe RF Circuit Power and Linearity Characteristics With a Homodyne Differential Temperature Sensor. IEEE Transactions on Circuits and Systems I: Regular Papers, 2011, 58, 458-469.	5.4	30
5	Defect-oriented non-intrusive RF test using on-chip temperature sensors. , 2013, , .		28
6	Strategies for built-in characterization testing and performance monitoring of analog RF circuits with temperature measurements. Measurement Science and Technology, 2010, 21, 075104.	2.6	26
7	Thermal Testing of Integrated Circuits. , 2002, , .		21
8	Efficiency determination of RF linear power amplifiers by steady-state temperature monitoring using built-in sensors. Sensors and Actuators A: Physical, 2013, 192, 49-57.	4.1	19
9	Differential Temperature Sensors Fully Compatible With a 0.35- $\mu\text{m}$ CMOS Process. IEEE Transactions on Components and Packaging Technologies, 2007, 30, 618-626.	1.3	17
10	Hot-Spot Detection in Integrated Circuits by Substrate Heat-Flux Sensing. IEEE Electron Device Letters, 2008, 29, 1142-1144.	3.9	17
11	A heterodyne method for the thermal observation of the electrical behavior of high-frequency integrated circuits. Measurement Science and Technology, 2008, 19, 115704.	2.6	16
12	MOSFET temperature sensors for on-chip thermal testing. Sensors and Actuators A: Physical, 2013, 203, 234-240.	4.1	16
13	On-Chip MOSFET Temperature Sensor for Electrical Characterization of RF Circuits. IEEE Sensors Journal, 2013, 13, 3343-3344.	4.7	16
14	Spatially and frequency-resolved monitoring of intradie capacitive coupling by heterodyne excitation infrared lock-in thermography. Applied Physics Letters, 2013, 102, .	3.3	16
15	Steady-state sinusoidal thermal characterization at chip level by internal infrared-laser deflection. Journal Physics D: Applied Physics, 2008, 41, 155508.	2.8	14
16	Localisation of heat sources in electronic circuits by microthermal laser probing. International Journal of Thermal Sciences, 2000, 39, 544-549.	4.9	13
17	Temperature Sensors to Measure the Central Frequency and 3 dB Bandwidth in mmW Power Amplifiers. IEEE Microwave and Wireless Components Letters, 2014, 24, 272-274.	3.2	13
18	CMOS Differential and Absolute Thermal Sensors. Journal of Electronic Testing: Theory and Applications (JETTA), 2002, 18, 295-304.	1.2	12

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19	On-Chip Thermal Testing Using MOSFETs in Weak Inversion. IEEE Transactions on Instrumentation and Measurement, 2015, 64, 524-532.	4.7	12
20	Hot spot analysis in integrated circuit substrates by laser mirage effect. Applied Physics Letters, 2011, 98, 164104.	3.3	11
21	Survey of Robustness Enhancement Techniques for Wireless Systems-on-a-Chip and Study of Temperature as Observable for Process Variations. Journal of Electronic Testing: Theory and Applications (JETTA), 2011, 27, 225-240.	1.2	11
22	DC temperature measurements for power gain monitoring in RF power amplifiers. , 2012, , .		11
23	Electro-thermal coupling analysis methodology for RF circuits. Microelectronics Journal, 2012, 43, 633-641.	2.0	11
24	MOSFET dynamic thermal sensor for IC testing applications. Sensors and Actuators A: Physical, 2016, 242, 195-202.	4.1	10
25	Differential sensing strategy for dynamic thermal testing of ICs. , 0, , .		9
26	CMOS differential and absolute thermal sensors. , 0, , .		9
27	Localisation of devices acting as heat sources in ICs covered entirely by metal layers. Electronics Letters, 2003, 39, 1440.	1.0	9
28	Output Power and Gain Monitoring in RF CMOS Class A Power Amplifiers by Thermal Imaging. IEEE Transactions on Instrumentation and Measurement, 2019, 68, 2861-2870.	4.7	9
29	Structural RFIC device testing through built-in thermal monitoring. , 2003, 41, 98-104.		8
30	Electrical characterization of analogue and RF integrated circuits by thermal measurements. Microelectronics Journal, 2007, 38, 151-156.	2.0	8
31	Testing RF circuits with true non-intrusive built-in sensors. , 2012, , .		8
32	Fault localisation in ICs by goniometric laser probing of thermal induced surface waves. Microelectronics Reliability, 1999, 39, 919-923.	1.7	7
33	Applications of temperature phase measurements to IC testing. Microelectronics Reliability, 2004, 44, 95-103.	1.7	7
34	Location of hot spots in integrated circuits by monitoring the substrate thermal-phase lag with the mirage effect. Optics Letters, 2010, 35, 2657.	3.3	7
35	Non-invasive monitoring of CMOS power amplifiers operating at RF and mmW Frequencies using an on-chip thermal sensor. , 2011, , .		7
36	Differential Temperature Sensors: Review of Applications in the Test and Characterization of Circuits, Usage and Design Methodology. Sensors, 2019, 19, 4815.	3.8	7

#	ARTICLE	IF	CITATIONS
37	BiCMOS thermal sensor circuit for built-in test purposes. Electronics Letters, 1998, 34, 1307.	1.0	6
38	Differential Thermal Testing: An Approach to its Feasibility. Journal of Electronic Testing: Theory and Applications (JETTA), 1999, 14, 57-66.	1.2	6
39	On the Use of Static Temperature Measurements as Process Variation Observable. Journal of Electronic Testing: Theory and Applications (JETTA), 2012, 28, 685-695.	1.2	6
40	DC Temperature Measurements to Characterize the Central Frequency and 3 dB Bandwidth in mmW Power Amplifiers. IEEE Microwave and Wireless Components Letters, 2015, 25, 745-747.	3.2	5
41	Thermal testing: fault location strategies. , 0, , .		4
42	Built-in dynamic thermal testing technique for ICs. Electronics Letters, 1996, 32, 1982.	1.0	4
43	Sensing temperature in CMOS circuits for thermal testing. , 0, , .		4
44	Laser beam deflection-based perimeter scanning of integrated circuits for local overheating location. Journal Physics D: Applied Physics, 2009, 42, 012002.	2.8	4
45	Study of heat sources interacting in integrated circuits by laser mirage effect. Applied Physics Letters, 2014, 105, 084101.	3.3	4
46	Characterization of MOSFET Temperature Sensors for On-chip Dynamic Thermal Measurements. Procedia Engineering, 2015, 120, 836-839.	1.2	4
47	Thermal phase lag heterodyne infrared imaging for current tracking in radio frequency integrated circuits. Applied Physics Letters, 2017, 110, 094101.	3.3	4
48	Differential temperature sensor with high sensitivity, wide dynamic range and digital offset calibration. Sensors and Actuators A: Physical, 2017, 263, 373-379.	4.1	4
49	Calibration-free heat source localisation in ICs entirely covered by metal layers. Electronics Letters, 2004, 40, 241.	1.0	3
50	Observation of high-frequency analog/RF electrical circuit characteristics by on-chip thermal measurements. , 0, , .		3
51	Heterodyne lock-in thermal coupling measurements in integrated circuits: Applications to test and characterization. Review of Scientific Instruments, 2009, 80, 026101.	1.3	3
52	Physically based analysis of electrical frequency response of passive microelectronic circuits by heterodyne lock-in thermal means. Journal Physics D: Applied Physics, 2013, 46, 445501.	2.8	3
53	Electro-thermal characterization of a differential temperature sensor in a 65nm CMOS IC: Applications to gain monitoring in RF amplifiers. Microelectronics Journal, 2014, 45, 484-490.	2.0	3
54	Analysis of the feasibility of dynamic thermal testing in digital circuits. , 0, , .		2

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55	Frequency Characterization of a 2.4 GHz CMOS LNA by Thermal Measurements. , 0, , .		2
56	Using Temperature as Observable of the Frequency Response of RF CMOS Amplifiers. , 2008, , .		2
57	On line monitoring of RF power amplifiers with embedded temperature sensors. , 2012, , .		2
58	Design of a fully integrated CMOS self-testable RF power amplifier using a thermal sensor. , 2012, , .		2
59	Single-MOSFET DC thermal sensor for RF-amplifier central frequency extraction. Sensors and Actuators A: Physical, 2017, 264, 157-164.	4.1	2
60	Design of ULV ULP LNAs Exploiting FBB in FDSOI 28nm Technology. , 2019, , .		2
61	BPF-Based Thermal Sensor Circuit for On-Chip Testing of RF Circuits. Sensors, 2021, 21, 805.	3.8	2
62	Thermal coupling in ICs: Applications to the test and characterization of analogue and RF circuits. , 2010, , .		1
63	Monitor strategies for variability reduction considering correlation between power and timing variability. , 2011, , .		1
64	Review of temperature sensors as monitors for RF-MMW built-in testing and self-calibration schemes. , 2014, , .		1
65	Temperature sensors and measurements to test analogue circuits: questions and answers. , 2016, , .		1
66	Thermal monitoring of ICs. , 2002, , 139-183.		1
67	Advanced failure detection techniques in deep submicron CMOS integrated circuits. Microelectronics Reliability, 1999, 39, 909-918.	1.7	0
68	Thermal Testing of Analogue Integrated Circuits: A Case Study. Journal of Electronic Testing: Theory and Applications (JETTA), 2003, 19, 353-357.	1.2	0
69	Non-invasive RF built-in testing using on-chip temperature sensors. , 2009, , .		0
70	Nonlinearity characterization of temperature sensing systems for integrated circuit testing by intermodulation products monitoring. Review of Scientific Instruments, 2011, 82, 094902.	1.3	0
71	On the Use of Built-In Temperature Sensors to Monitor Aging in RF Circuits. , 2019, , .		0
72	Temperature as a test observable variable in ICs. , 2002, , 97-138.		0

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73	Thermal analysis in integrated circuits. , 2002, , 53-96.		0