

# Valluri Rao

---

Intel Fellow, Technology and Manufacturing Group  
Director, Analytical and Microsystems Technology  
INTEL CORPORATION

## ISSUED PATENTS AS OF 2/25/2011

	Patent Number	Patent Title
1	7867786	Ferroelectric layer with domains stabilized by strain
2	7787352	Method for processing a MEMS/CMOS cantilever based memory storage device
3	7782649	Using controlled bias voltage for data retention enhancement in a ferroelectric media
4	7750333	Bit-erasing architecture for seek-scan probe (SSP) memory storage
5	7626846	Method and media for improving ferroelectric domain stability in an information storage device
6	7559242	Silicon micromachined ultra-sensitive vibration spectrum sensor array (VSSA)
7	7514942	Probe based patterning of microelectronic and micromechanical devices
8	7465578	Nucleic acid sequencing by Raman monitoring of uptake of precursors during molecular replication
9	7364851	Nucleic acid sequencing by Raman monitoring of uptake of precursors during molecular replication
10	7358579	Reducing the actuation voltage of microelectromechanical system switches
11	7354788	Method for processing a MEMS/CMOS cantilever based memory storage device
12	7339446	Tunable resonator with MEMS element
13	7312505	Semiconductor substrate with interconnections and embedded circuit elements
14	7307331	Integrated radio front-end module with embedded circuit elements
15	7302832	Use of arrays of atomic force microscope/scanning tunneling microscope tips to scan nanocodes
16	7291561	MEMS device integrated chip package, and method of making same
17	7245057	Micro-electromechanical structure resonator frequency adjustment using radiant energy trimming and laser/focused ion beam assisted deposition
18	7238477	Methods to increase nucleotide signals by Raman scattering
19	7168484	Thermal interface apparatus, systems, and methods
20	7167135	MEMS based tunable antenna for wireless reception and transmission
21	7154358	Film bulk acoustic resonator structure and method of making

22	7116034	Structure to achieve high-Q and low insertion loss film bulk acoustic resonators
23	7112887	Integrated circuit die and an electronic assembly having a three-dimensional interconnection scheme
24	7050320	MEMS probe based memory
25	7002436	Vacuum-cavity MEMS resonator
26	7871569	Biosensor utilizing a resonator having a functionalized surface
27	6982165	Nucleic acid sequencing by raman monitoring of molecular deconstruction
28	6975184	Adjusting the frequency of film bulk acoustic resonators
29	6967548	Microelectromechanical (MEMS) switching apparatus
30	6943648	Methods for forming a frequency bulk acoustic resonator with uniform frequency utilizing multiple trimming layers and structures formed thereby
31	6943419	Hermetically packaging a microelectromechanical switch and a film bulk acoustic resonator
32	6940367	Forming film bulk acoustic resonator filters
33	6903452	Packaging microelectromechanical structures
34	6861783	Structure to achieve high-Q and low insertion loss film bulk acoustic resonators
35	6855946	Fiducial transistor in an integrated circuit
36	6852926	Packaging microelectromechanical structures
37	6852492	Nucleic acid sequencing by raman monitoring of uptake of precursors during molecular replication
38	6848177	Integrated circuit die and an electronic assembly having a three-dimensional interconnection scheme
39	6822535	Film bulk acoustic resonator structure and method of making
40	6816035	Forming film bulk acoustic resonator filters
41	6812814	Microelectromechanical (MEMS) switching apparatus
42	6808954	Vacuum-cavity MEMS resonator
43	6787970	Tuning of packaged film bulk acoustic resonator filters
44	6753639	Micro-electromechanical structure resonator frequency adjustment using radiant energy trimming and laser/focused ion beam assisted deposition

45	6753541	Method and apparatus for making and using a beacon fiducial for an integrated circuit
46	6713314	Hermetically packaging a microelectromechanical switch and a film bulk acoustic resonator
47	6706981	Techniques to fabricate a reliable opposing contact structure
48	6686820	Microelectromechanical (MEMS) switching apparatus
49	6673697	Packaging microelectromechanical structures
50	6662419	Method for fabricating film bulk acoustic resonators to achieve high-Q and low loss
51	6650204	Resonator frequency correction by modifying support structures
52	6621137	MEMS device integrated chip package, and method of making same
53	6621022	Reliable opposing contact structure
54	6593672	MEMS-switched stepped variable capacitor and method of making same
55	6587605	Method and apparatus for providing optical interconnection
56	6573822	Tunable inductor using microelectromechanical switches
57	6570468	Resonator frequency correction by modifying support structures
58	6495454	Substrate interconnect for power distribution on integrated circuits
59	6448168	Method for distributing a clock on the silicon backside of an integrated circuit
60	6393169	Method and apparatus for providing optical interconnection
61	6355950	Substrate interconnect for power distribution on integrated circuits
62	6316981	Signal distribution network on backside of substrate
63	6222246	Flip-chip having an on-chip decoupling capacitor
64	6150718	Method and apparatus for performing a circuit edit through the back side of an integrated circuit die
65	6125217	Clock distribution network
66	6122174	Method of accessing the circuitry on a semiconductor substrate from the bottom of the semiconductor substrate

67	6084396	Method for performing quantitative measurement of DC and AC current flow in integrated circuit interconnects by the measurement of magnetic fields with a magneto optic laser probe
68	6075908	Method and apparatus for optically modulating light through the back side of an integrated circuit die
69	6072179	Method and apparatus using an infrared laser based optical probe for measuring voltages directly from active regions in an integrated circuit
70	6049639	Method and apparatus providing optical input/output through the back side of an integrated circuit die
71	6037822	Method and apparatus for distributing a clock on the silicon backside of an integrated circuit
72	5976980	Method and apparatus providing a mechanical probe structure in an integrated circuit die
73	5969517	Apparatus for performing quantitative measurement of DC and AC current flow in integrated circuit interconnects by measurement of magnetic fields with a magneto optic laser probe
74	5952247	Method of accessing the circuitry on a semiconductor substrate from the bottom of the semiconductor substrate
75	5904486	Method for performing a circuit edit through the back side of an integrated circuit die
76	5872360	Method and apparatus using an infrared laser based optical probe for measuring electric fields directly from active regions in an integrated circuit
77	5805421	Semiconductor substrate having alignment marks for locating circuitry on the substrate
78	4980019	Etch-back process for failure analysis of integrated circuits
79	4961812	Etch-back apparatus for integrated circuit failure analysis
80	4766372	Electron beam tester