Savant Technologies Ltd.
43 Arava Street, Maccabim 71908, Israel Tel/Fax: 972 8 926 6437

List of Functional Blocks

Date 12/4/2007

List of Functional RFIC, MMIC Cells

Function	*Status*	*Description*
Doubler	Measured	CL ~4dB, Fin 8 - 10GHz
Tripler 5-8	Measured	CL <10dB, Fin 5 - 8GHz
Tripler 7.9-9	Measured	CL <10dB, Fin 7.5 – 9GHz
Mixer X band	Measured	CL < 10dB, RF 8 – 12GHz, 5GHz LPF IF Filter
Mixer Ku band	Measured	CL < 10dB, RF 14 – 18GHz, 5GHz LPF IF Filter
Mixer 17-24	Measured	CL < 10dB Up/Down, RF 24 – 30GHz, IF 0.9-3GHz
Mixer 24-30	Measured	CL < 10dB Up/Down, RF 24 – 30GHz, IF 0.9-3GHz
IRM 17.7 – 21.5	Measured	CL < 10dB RF 17.7 – 21.5GHz, IF 0.9-3GHz
Phase shifter 6bit	Design	6 bit, S band
Wideband Phase shifter	Design	6 bit, 6-16GHz
DCA 5.5 bit	Measured	6 bit, S band, IL 2.5dB, 0.5, 1, 2, 4, 8, 8 dB bits
LO x3 chain	Measured	LOin 7.8-9GHz Input buffer, 13dBm, Tripler, BPF
IRM+LO x2 Chain	Measured	LOin 7.8-9GHz Input buffer, 13dBm, Tripler, BPF
RF quad coupler	Measured	0.9-1.5GHz
Ka VCO	Measured	30 – 32 GHz 10dBm, AM, FM modulation
Ka Antenna	Measured	On chip, ~50deg EL, 60deg Az, 25GHz, 7% BW
RF AMP (LNA)	Measured	17-24.5GHz ~22dB gain NF 3.6dB
LO mid power buffer	Measured	15.9-22.5GHz 15dB Gain
C band amplifier	Measured	13dB Gain
Amplifier 17-24	Measured	3stage, 2x0.5mm cell output, 17-24.5GHz, 22dBm
Amplifier 24-30	Measured	2Stage, 2x0.5mm Balanced, 24.5-30GHz, 18dBm
IQ Modulator 5-6	Design	IF DC-100MHz Gilbert Mixer
Amplifier 17-24	Design	3stage, 4x0.5mm cell output, 17-24.5GHz, 27dBm
Amplifier 24-30	Measured	3stage, 2x0.5mm cell output
Single stage amplifier	Measured	11dB gain, 23-30GHz
X band Amp	Measured	2Stage, 2x0.6mm cell, X band, 27dBm, 18dB gain
S band Power Amp	Design	S band, 20W output, 27dB gain
Wideband Amplifier	Measured	4-18GHz, > 10dB gain

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Function	*Status*	*Description*
Modified Bessel LPFs	Measured	Cutoff freq. 2.55, 2.7, 2.85, 3.0, 3.15GHz, RL >15dB
Distributed amplifier	Measured	DC-20GHz , 0.25um pHEMT, 10dB gain, 12dB match
Distributed amplifier	Measured	DC-40GHz , 0.15um pHEMT, 8dB gain, 12dB match
Fshaper	FAB	Custom microwave signal amplitude shaper

Design – design and layout stage
FAB – fabrication at Gal El, UMS or WIN and standby for measurements
Measured – measured data available

This functions list does not include functions developed for specific customers under non-disclosure agreements.