MMICs and HEMTs

★ Under development

■ MMICs for Power Amplifier

Model No.	Description	Operating frequency (MHz)	Supply voltage (V)	Output power (dBm) MIN.	Efficiency (%) MIN.	Leak current (μA) MAX.	Operating temp. (°C)	Package
★IR-M002J	Power amp. for GSM	890 to 915	6.0	35.0	45	10	− 30 to 80	16 Ceramic LCC
IR-M005J	Power amp. for DCS 1800	1 710 to 1 785	6.0	32.5	35	10	− 30 to 80	16 Ceramic LCC
IR-M007N	Power amp. for PHS	1 890 to 1 920	3.4	21.0	18	—	− 10 to 70	26SSOP

■ MMICs for Mixer

Model No.	Description	Operating frequency (MHz)	Supply voltage (V)	Conversion gain (dB)	Operating temp. (°C)	Package
IR-M010	GaAs quad MES FET for Double Balanced Mixer (DBM)	• RF : 100 to 800 • LO : 1 055.75 to 1 755.75	5.0	− 5	− 20 to 80	8SOP
IR-M011*1						

※1 Reversal pin assignment type of IR-M010

■ MMIC for Switch

Model No.	Description	Operating frequency (MHz)	Supply voltage (V)	Insertion loss (dBm) MAX.	Operating temp. (°C)	Package
IR-M012N	SPDT type GaAs switch for small power	1 000 to 2 000	3.8	1.0	− 20 to 80	8SOP

■ HEMTs for BS/CS Receiver

Model No.	Type	Drain current (mA)	Drain to source voltage (V) MAX.	Gate to source voltage (V) MAX.	Gate to drain voltage (V) MAX.	Noise figure*1 (dB) MAX.	Noise figure associated power gain*1 (dB) MIN.	Package
IR-H001J*	For first amp.(low noise)	15 to 80	2.9	− 3.4	− 3.4	0.55	10.5	4 Ceramic
IR-H002J*	For first amp.	15 to 80	2.9	− 3.4	− 3.4	0.6	10.5	
IR-H003J*	For 2nd, 3rd amp. and mixer	15 to 80	2.9	− 3.4	− 3.4	0.8	10.0	
IR-H004J*	For 2nd, 3rd amp. and mixer	15 to 80	2.9	− 3.4	− 3.4	1.2	9.0	
IR-H005J*	For oscillator	30 to 80	3.5	− 3.5	− 3.5	1.2	9.0	

※ Taped model
※1 Vds = 2.0 V, Id = 10 mA, f = 12 GHz

■ HEMT for GPS Receiver

Model No.	Type	Drain current (mA)	Drain to source voltage (V) MAX.	Gate to source voltage (V) MAX.	Gate to drain voltage (V) MAX.	Noise figure*2 (dB) MAX.	Noise figure associated power gain*2 (dB) MIN.	Package
IR-H006J*	For amp.	15 to 80	2.9	− 3.4	− 3.4	0.6	16.0	4 Ceramic

※ Taped model
※2 Vds = 2.0 V, Id = 10 mA, f = 1.6 GHz