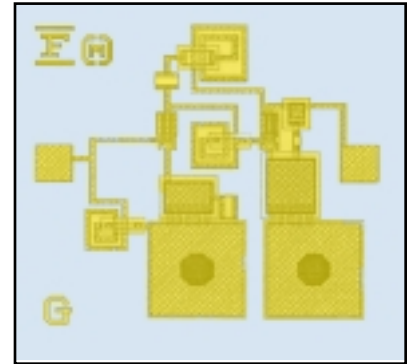


FEATURES

- Low Noise Figure: NF = 1.6dB (Typ.) @ f=30 GHz
- High Associated Gain: G_{as} = 13dB (Typ.) @ f=30 GHz
- Wide Frequency Band: 27-32 GHz
- Impedance Matched Z_{in}/Z_{out} = 50 Ω



DESCRIPTION

The FMM5702X is a LNA MMIC designed for applications in the 27-32 GHz frequency range. This product is well suited for satellite communications and radio link applications where low noise and high gain is required.

ABSOLUTE MAXIMUM RATING (Ambient Temperature Ta=25°C)

Item	Symbol	Condition	Rating	Unit
Drain-Source Voltage	V _{DD}		5	V
Input Power	P _{in}		-4	dBm
Storage Temperature	T _{stg}		-65 to +175	°C
Operating Backside Temperature	T _{op}		-45 to +125	°C

Fujitsu recommends the following conditions for the long term reliable operation of GaAs FETs:

1. The drain-source operating voltage (V_{DD}) should not exceed 4 volts.
2. This product should be hermetically packaged.

ELECTRICAL CHARACTERISTICS (Ambient Temperature Ta=25°C)

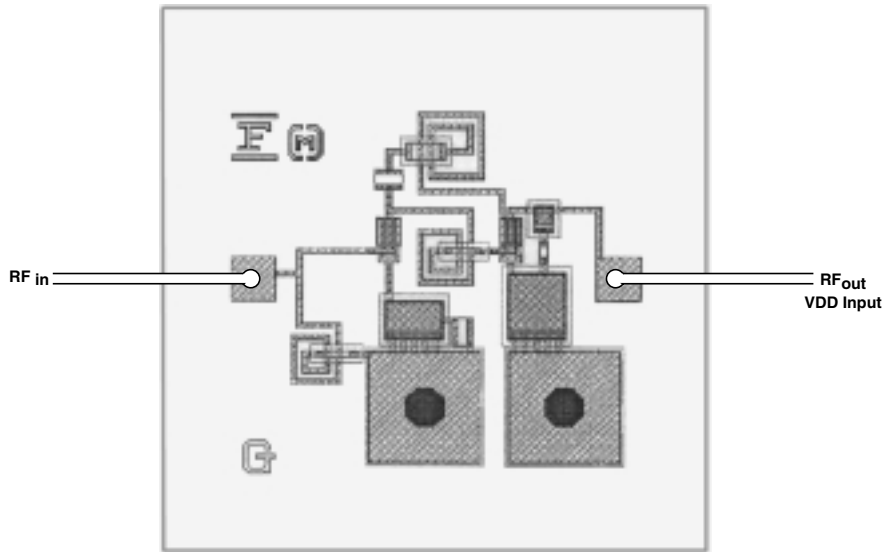
Item	Symbol	Conditions	Limits			Unit
			Min.	Typ.	Max.	
Noise Figure	NF	V _{DD} = 4V f = 30.0 GHz I _{DD} = 5mA (Typ.) Z _S = Z _L = 50 Ω	-	1.6	2.0	dB
Associated Gain	G _{as}		11.0	13.0	-	dB
Input Return Loss	RL _{in}		-	-12	-	dB
Output Return Loss	RL _{out}		-	-9	-	dB

Note: RF parameter sample size 10pcs. Criteria (accept/reject)=(0/1)

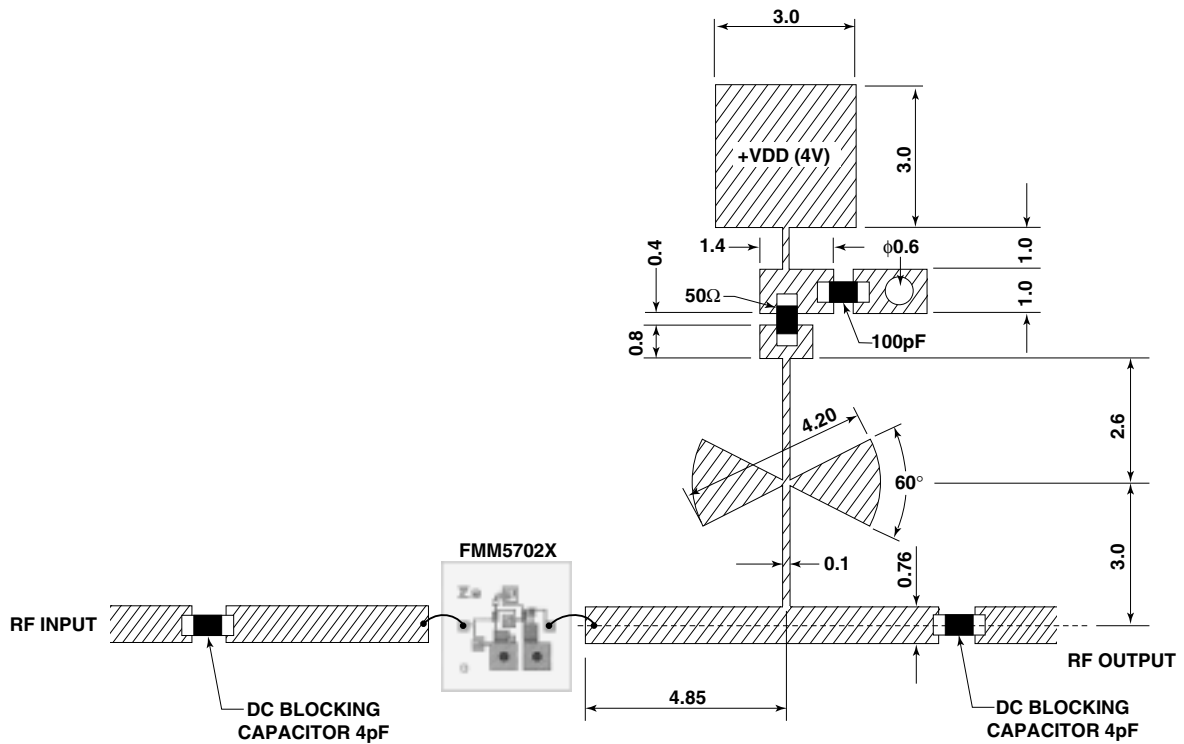
FMM5702X

27-32GHz LNA MMIC

BONDING LAYOUT



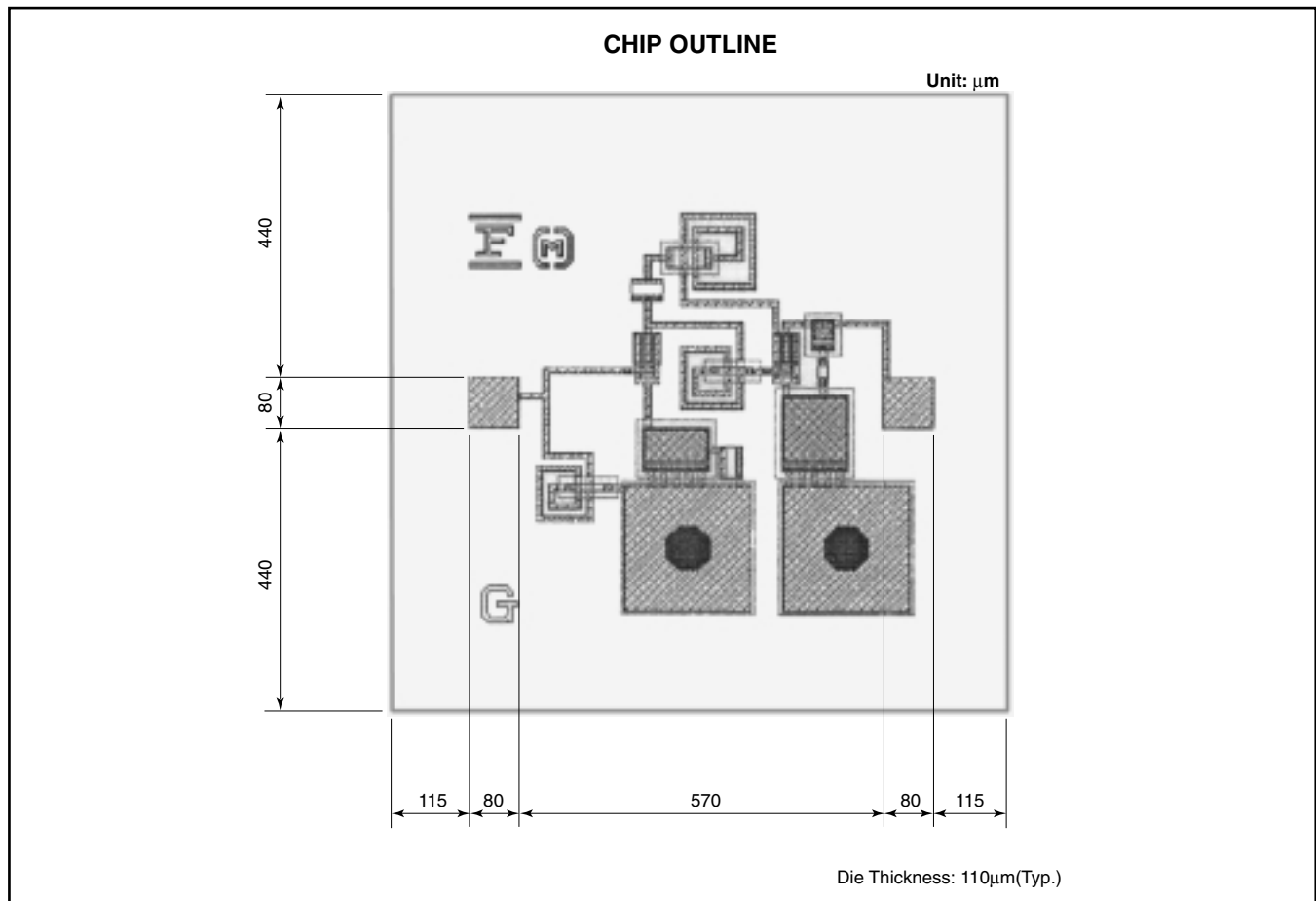
RF MEASUREMENT CIRCUIT



Unit: mm
Thickness: 0.254mm
 ϵ_r : 2.17

FMM5702X

27-32GHz LNA MMIC



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CAUTION


Fujitsu Compound Semiconductor Products contain **gallium arsenide (GaAs)** which can be hazardous to the human body and the environment. For safety, observe the following procedures:

- Do not ingest.
- Do not alter the form of this product into a gas, powder, or liquid through burning, crushing, or chemical processing as these by-products are dangerous to the human body if inhaled, ingested, or swallowed.
- Observe government laws and company regulations when discarding this product. This product must be discarded in accordance with methods specified by applicable hazardous waste procedures.

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