OVERVIEW
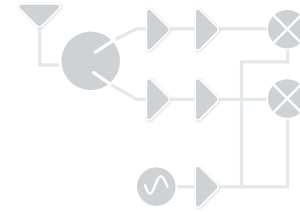
CEL is offering a new family of Ku and K bands low noise RF GaAs FETs.

Drop-in Replacements

CEL offers drop-In alternatives to discontinued Renesas Electronics RF products with cost savings to customers.

Look for this icon next to any Renesas discontinued part number for its CEL equivalent drop-in replacement.

Visit: www.cel.com/components/low_noise_devices/ for the latest information as we continue to release new products.

BENEFITS & FEATURES

Lower Cost
Cost Savings for New and Existing Customers

Drop-In Replacements
Replace your Renesas Phased-Out Devices with CEL's RF Parts

High RF Performance
Better RF Performance than other pHEMTs

High Japanese Quality
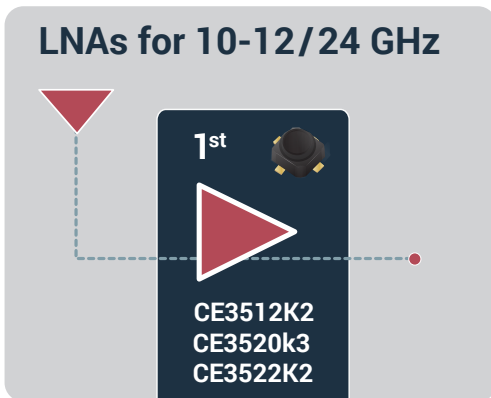Manufactured in Japan with High Quality, Packaging and Testing

GaAs FETs

CEL Part Numbers	Test Frequency (GHz)	NF/GA Bias		NF (dB)	GA (dB)	P1dB (dBm)	Drop-in Replacement to Renesas	Package Styles	
		VDS (v)	IDS (mA)						
CE3512K2	12	2.0	10	0.30	13.7		NE3210S01 NE3511S02 NE3512S02 NE3516S02 NE4210S01		(2.6 x 2.6 x 1.5)
CE3522K2	12	2.0	10	0.32	14.0		N/A		(2.6 x 2.6 x 1.5)
CE3514M4	12	2.0	10	0.42	12.2		NE3503M04 NE3513M04		(2.0 x 1.25 x 0.6)
CE3520K3	20/24	2.0	10	0.55/0.88	13.8/13.9		NE3514S02 NE3517S03 NE3520S03		(2.6 x 2.6 x 1.5)
CE3521M4	20	2.0	10	0.70	11.9		NE3521M04		(2.0 x 1.25 x 0.6)
CA3509M4	1.575	3.0	15	0.4	17.0	12.0	N/A		(2.0 x 1.25 x 0.6)
CE7613M4	12	4.0	10	0.35	14.1		N/A		(2.0 x 1.25 x 0.6)

New Low Noise pHEMTs by CEL

PRODUCT BRIEF

BLOCK DIAGRAM EXAMPLES

LNBs for 12 GHz

1st — CE3512K2

2nd — CE3514M4

LNBs for 20 GHz

1st — CE3520K3

2nd — CE3521M4

3rd — CE3521M4

LNAs for 10-12 / 24 GHz

1st — CE3512K2
CE3520k3
CE3522K2

TARGET MARKETS

DBS/LNB
Digital Broadcast Systems and
Low Noise Block downconverters

VSAT Systems
Very Small Aperture Terminal
Satellite communication systems

Microwave Systems
Communication Systems

Motion Detector
Motion sensors with distance &
Angle information

Traffic Monitoring
Real time comprehensive
traffic information

Collision Avoidance
Sensors that help prevent
collisions and accidents

Presence Detection
Detect the presence of nearby
objects without physical contact

CEL AVAILABLE TOOLS & DOCUMENTATION

- Datasheets
- S-Parameters

Available on CEL's website (on the product page of each device)

Get Full Access of Tools & Documents at:
www.cel.com/components/low_noise_devices/

freq (2.000GHz to 26.00GHz)