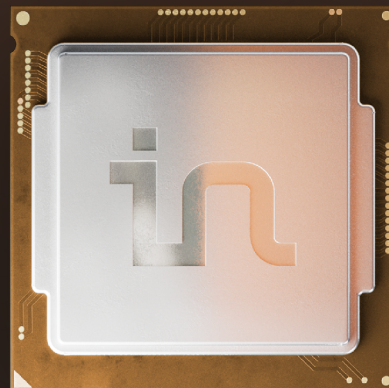


— DIGITAL BEAMFORMING IC • KA-BAND

Nebula32.4

Digital Beamforming IC for SatCom

Low-power, ultra-wideband Ka-band beamforming for satellite payloads.



The Nebula32.4 is a digital Beamformer IC that integrates 32 transmit and receive paths. It processes up to 32 GHz of aggregated system bandwidth across 32 TRx paths, each with up to 4 GHz of instantaneous bandwidth, and operates at Ka-band with up to 512 concurrent beams. It consumes only 300 mW per path for satellite-based multibeam electronically steered antenna arrays (ESA).

It targets broadband data connectivity from the low-earth orbit satellite constellations, expanding capacity, throughput, and number of users while meeting the power budget constraints. It is designed using GlobalFoundries 22FDX technology that inherently allows for rad-tolerant designs.

32

TRx PATHS

32 GHz

AGGREGATE BW

512

CONCURRENT BEAMS

300 mWPER PATH (core
power
consumption
AD/DA
converter)**4** GHz

IBW / CHANNEL

CONTACT US FOR MORE PRODUCT DETAILS

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