



## RF Small Signal

### **TFF11084HN, TFF11096HN, TFF11105HN, TFF11152HN – NEW Low phase noise LO generators for Microwave Radio, Satellite Communications, Point-to-Point Communications, VSAT and Radar**

The TFF11xxxHN series are a Ku band frequency generators intended for low phase noise Local Oscillator (LO) circuits for Ku band VSAT transmitters and transceivers. The specified phase noise complies with IESS-308 from Intelsat. The TFF11xxxHN simplify design-in, lower the total cost of ownership with highly integrated, alignment-free LO generators.

Further products will be introduced soon to cover a complete frequency spectrum from 6.80 to 15.50 GHz.

#### **Key Benefits:**

- Improved overall RF performance at lower power consumption of only 330mW (GaAs approx. 2W)
- Simpler design – ground plane as heat-sink not needed (compared to GaAs)
- Single supply voltage of 3.3V  
(GaAs require two supply voltages → additional regulator needed plus min. three decoupling capacitors)
- Great Phase Noise of -99dBc/Hz at 100kHz offset
- More robust and long life than GaAs equivalents
- Fits for military/aerospace: NXP is European supplier! (GaAs competitors are non EU)

#### **Key Features:**

- **TFF11084HN** – LO generator with VCO range from 8.20 GHz to 8.60 GHz; Input signal 32 MHz to 538 MHz
  - **TFF11096HN** – LO generator with VCO range from 9.40 GHz to 9.80 GHz; Input signal 37 MHz to 616 MHz
  - **TFF11105HN** – LO generator with VCO range from 10.30 GHz to 10.80 GHz; Input signal 40 MHz to 675 MHz
  - **TFF11152HN** – LO generator with VCO range from 14.80 GHz to 15.50 GHz; Input signal 58 MHz to 969 MHz
  - Phase noise compliant with IESS-308 (Intelsat) in combination with appropriate source
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- Divider settings 16, 32, 64, 128 or 256; Output level -5 dBm; stability  $\pm 2$  dB
- Vcc range 3.0 to 3.6 V; Icc = 100 mA; SOT616 Package
- Internally stabilized voltage references for loop filter

**Key Applications:** VSAT up converters, Local Oscillator (LO) signal generation, [Microwave radio front-end](#)

**PIP page:** <http://www.nxp.com>

**LO PLL calculator:** [http://www.nxp.com/documents/other/PIIApplet\\_2008-03-11.zip](http://www.nxp.com/documents/other/PIIApplet_2008-03-11.zip)

**Availability**

**Samples:** Now

**Volume Production:** Nov 2010

**Push**

**to Distribution:** Yes

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