ALNA—AM/FM/VHF III Antenna LNA Family TLH5014, TLH5016 & TLH5018

Product One-Sheet

ALNA is the cost effective replacement for all current discrete transistor AM/FM/DAB (VHF III) antenna amplifier solutions with or without AGC control. 3 ICs will serve the different use cases:

TLH5018 - all applications for AM, FM and DAB

TLH5016 - all applications for FM and DAB

TLH5014 - all applications for FM and DAB with low gain

Current LNA Module

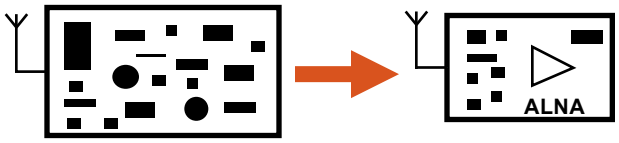
Todays discrete solutions

- ~80 components
- Large form factor

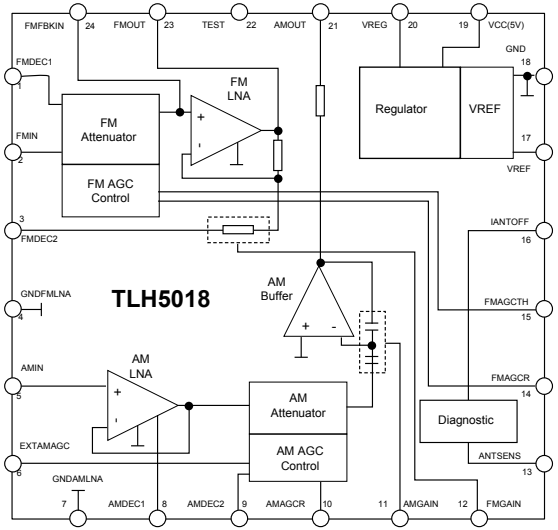
ALNA Module

Modules with ALNA

- ~40 components



ALNA Block Diagram



ALNA Module AM/FM PCB Layout

Key Characteristics

- AM LNA 0.14…30MHz
  - Adjustable AM LNA gain
  - AM AGC for output buffer protection
  - Adjustable AM AGC time constant
- FM LNA 65 ... 165MHz
  - FM AGC (up to 130 dBuV)
  - Adjustable FM AGC threshold and time constant
- VHF III application using FM path
  - with adjustable gain (up to 12 dB, FM typ. 6 dB)
  - Low intermodulation, high IP2 and IP3 figures
  - Low noise figure of typ. 2 dB for FM
  - In accordance with VW Spec TL82133
  - Diagnostic function with adjustable current
  - Built in regulator with external transistor
  - Ambient temperature range -40 … +105°C

Benefits

- Improved quality and reliability
- Improved overall performance
- Reduced system cost + small number of components + less mounting and pcb costs

www.nxp.com/S32R27

Document Number: ANTLNAFAMFS REV 0