

# 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

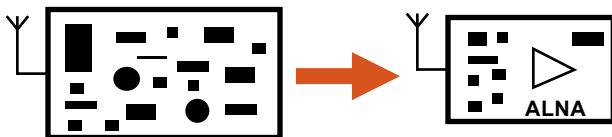
**TLH5016** - all applications for FM and DAB

**TLH5014** - all applications for FM and DAB with low gain

## Current LNA Module

### Today's discrete solutions

- ~80 components
- Large form factor

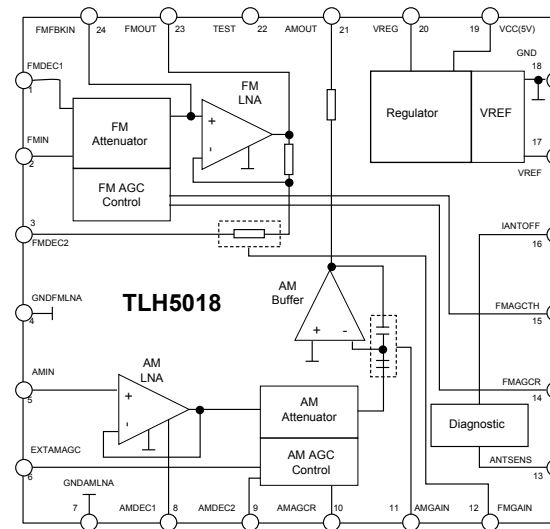


## ALNA Module

### 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

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