

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

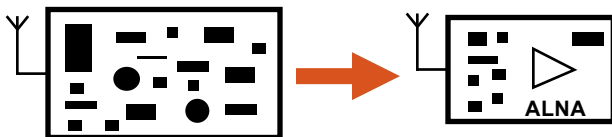
TLH5016 - all applications for FM and DAB

TLH5014 - all applications for FM and DAB with low gain

Current LNA Module

Today's discrete solutions

- ~80 components
- Large form factor

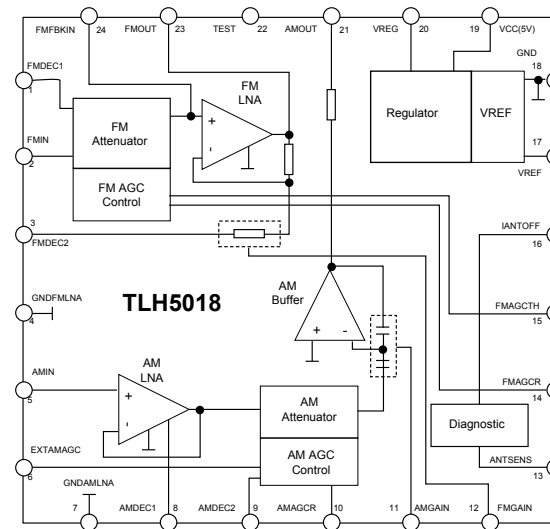


ALNA Module

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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