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

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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