



Test Report BLF574 174-230MHz

DVB-T

Demo #842

CA-123-08

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Introduction

- ▶ NXP has introduced a new powerful part to its 50V portfolio, the BLF574
- ▶ This report shows how 100W of DVB-T power can be generated in board space smaller than 2" x 4".
- ▶ Efficiencies greater than 31% are achieved at 100W DVB-T.
- ▶ The gain is 25dB at 100W.

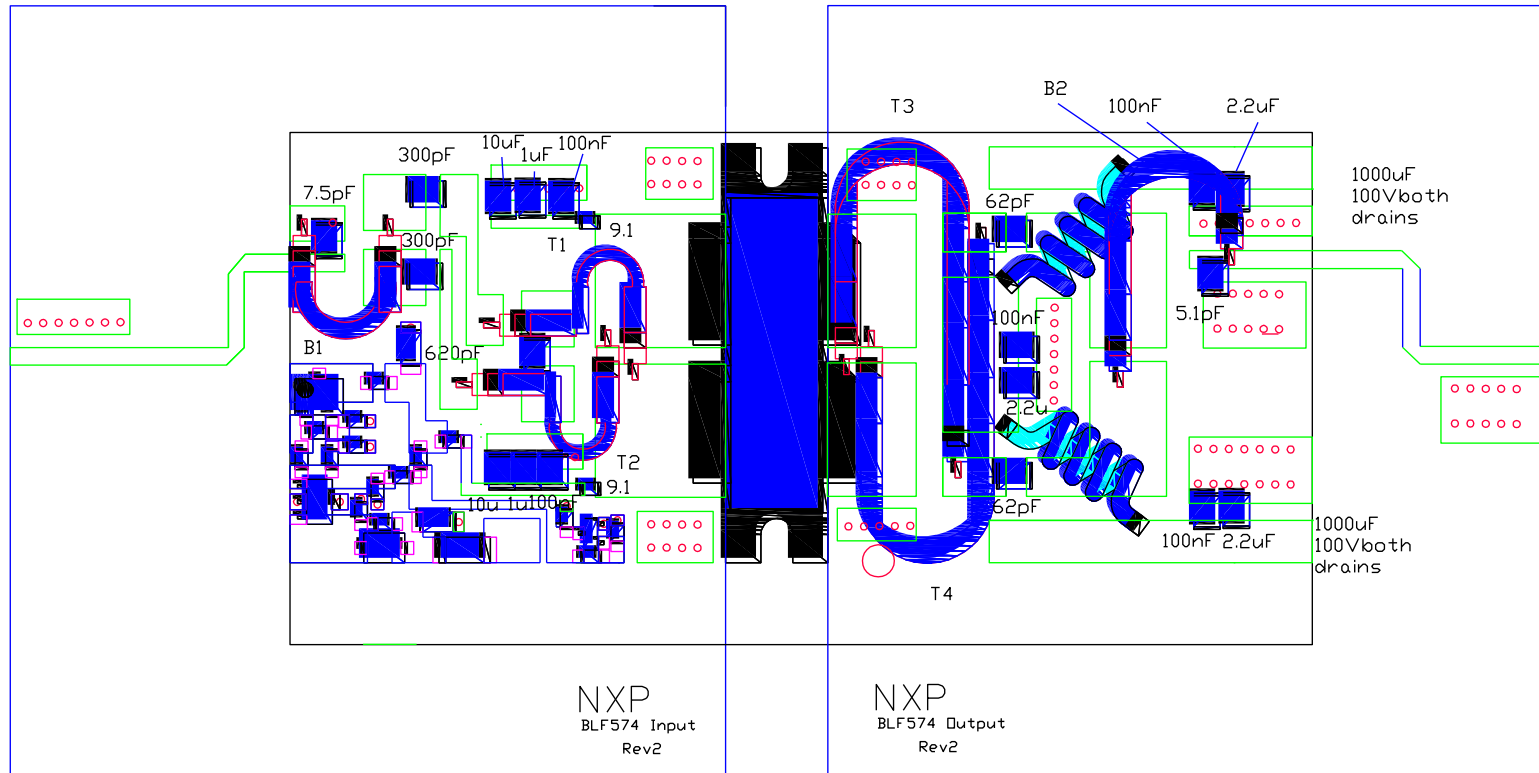
Performance Summary

Frequency (MHz)	Gain (dB)	Efficiency (%)	ACPR (dBc)	Return Loss (dB)	2 nd Har (dBc)
174	26.3	31.6	-32	9	-30
202	25.9	34.6	-33	12	-34
230	24.9	36.2	-31.3	11	-36

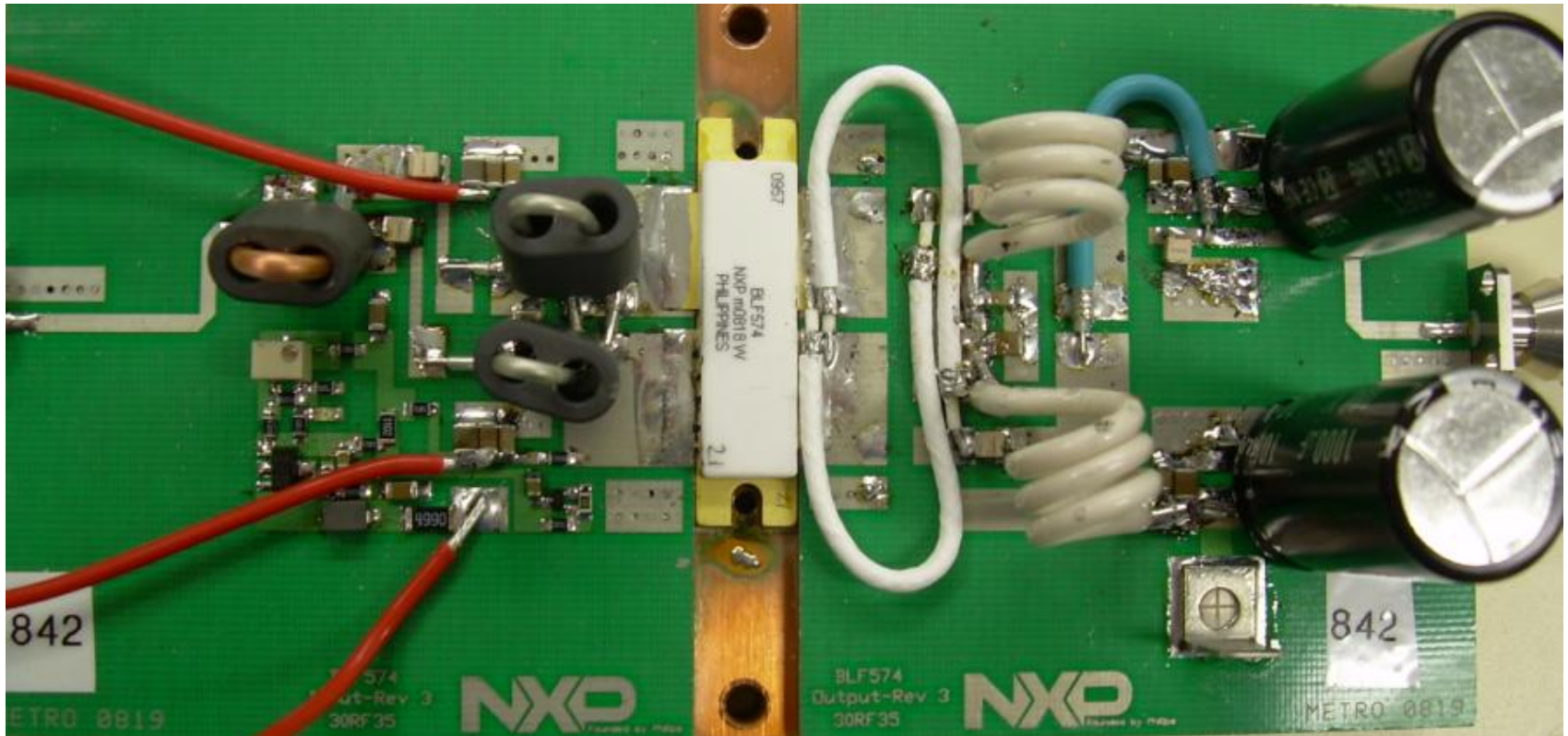
Performance is for 100W DVB-T

ACPR measured at 4.3 MHz break frequency (see Excel files)

Layout

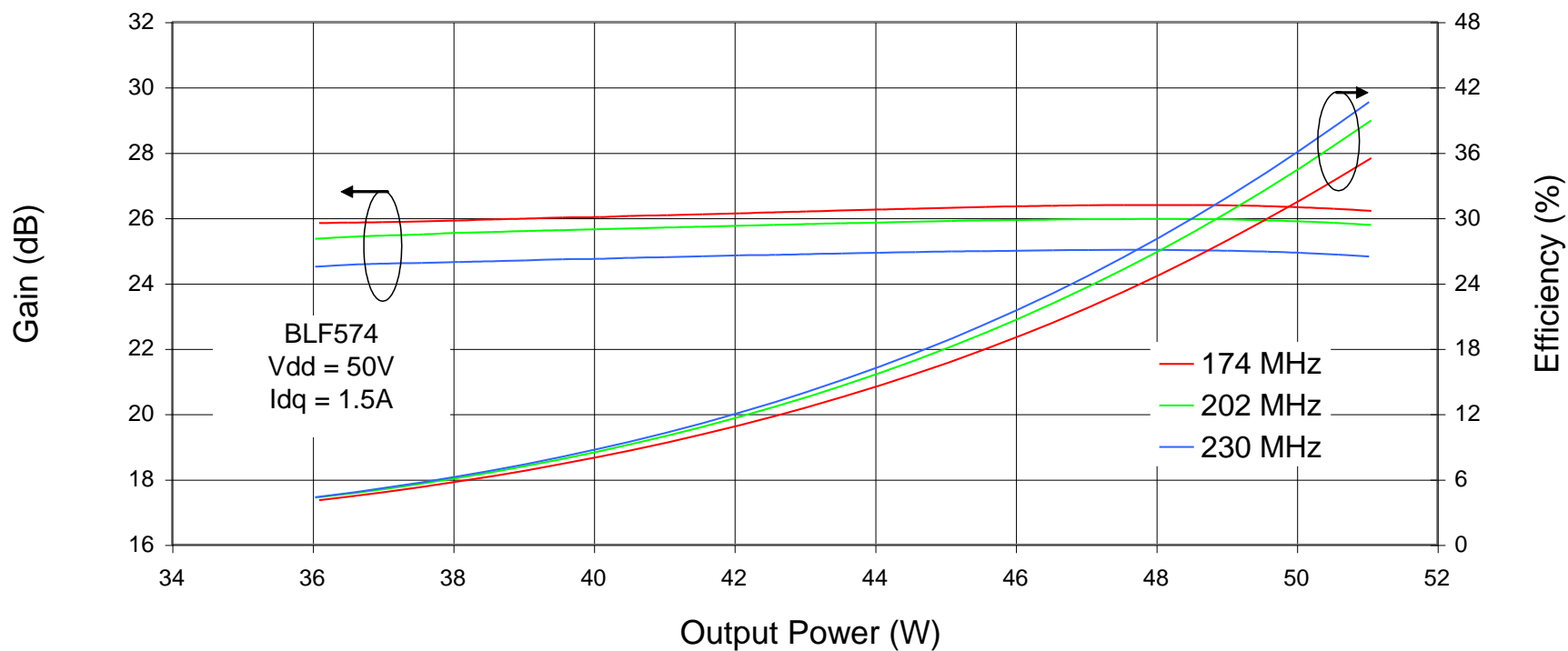


Demo Form Factor

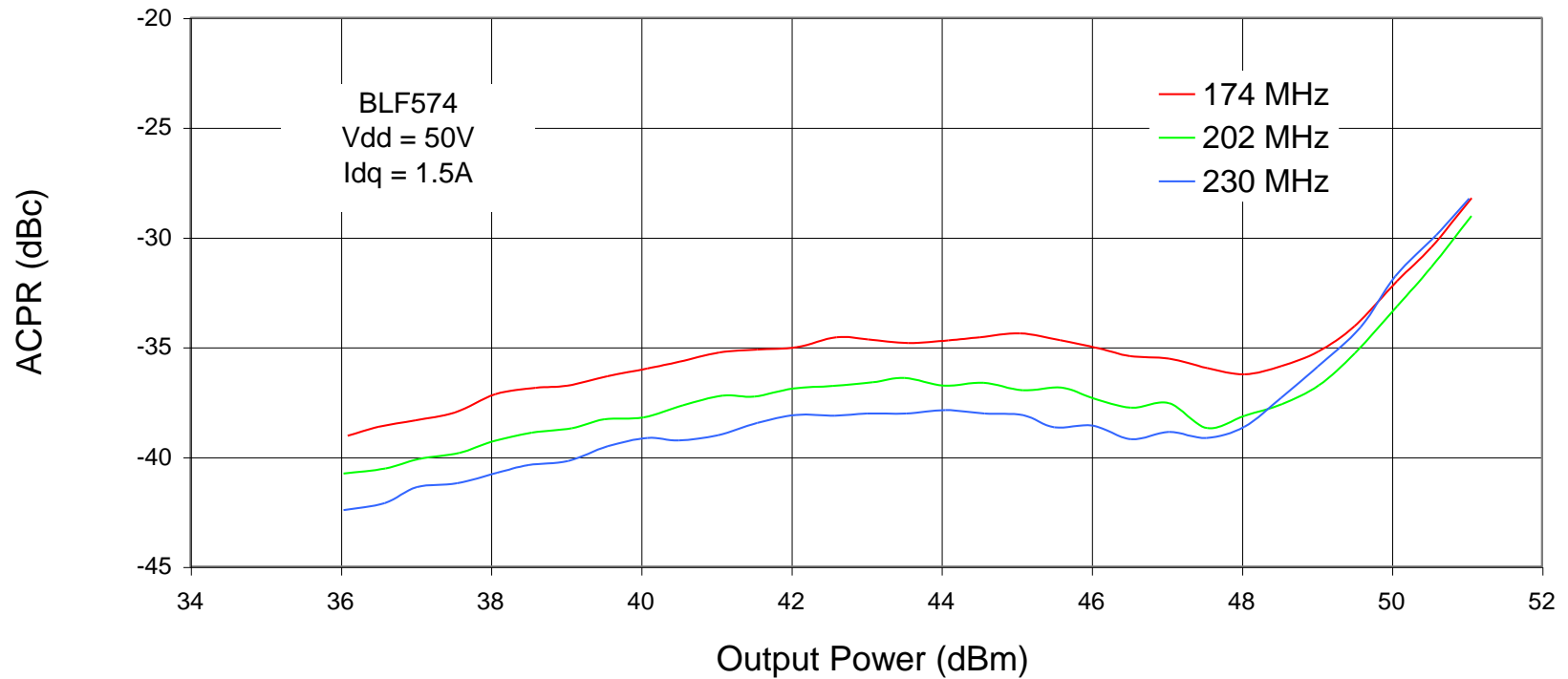


Circuit is only as wide as the transistor package itself

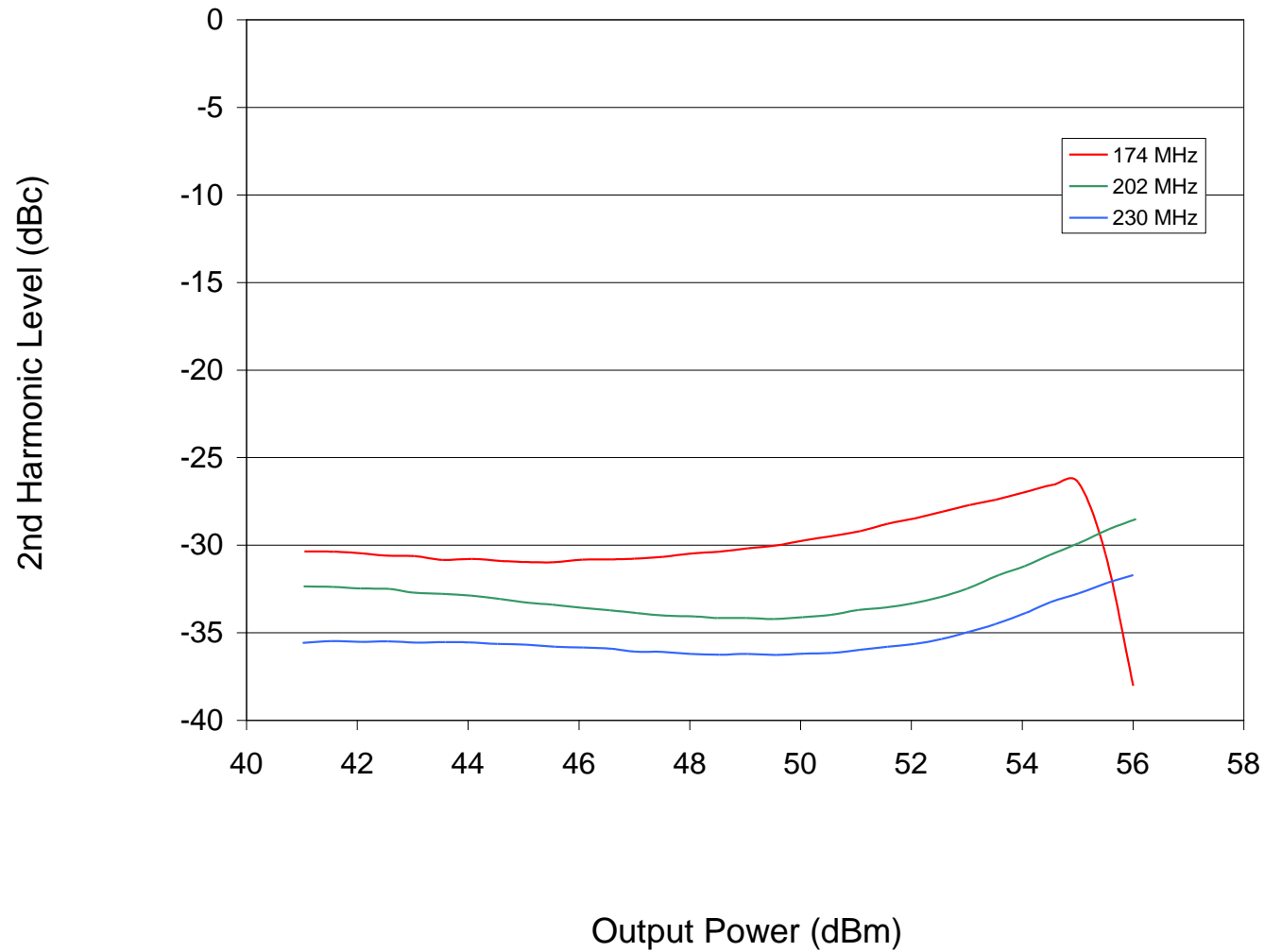
DVB-T Gain and Efficiency



DVB-T ACPR



2nd Harmonic Performance



Files



DVB-T
Performance



2nd
Harmonic



Layout



Signal Studio
Setup

To use the signal, save the Signal Studio file as a .txt file, or an .scp file. Load these as a 'settings file' within Signal Studio.

Signal information

- ▶ The signal was generated with Agilent's Signal Studio and an Agilent ESG4438C signal generator
- ▶ The settings were OFDM 64QAM 8k mode 8MHz signal
- ▶ Crest Factors as calculated from Signal Studio
 - 10% 3.66dB
 - 1% 6.48dB
 - 0.1% 8.28dB
 - 0.01% 8.94dB
 - 0.001% 9.1dB
 - 0.0001% 9.1dB

