NA-1502

BLF881 at 470-860 MHz

Rev. 3 — 05 October 2015

AMPLEON

Application Measurement Report

Document information

Info	Content
Keywords	NA-1502
Abstract	Measurement results of a demo board for 470-860 MHz with 1x BLF881.

Revision history

Rev	Date	Description
1	20120216	
2	20150424	Update for web publication
3	20151005	The format of this document has been redesigned to comply with the new identity guidelines of Ampleon. Legal texts have been adapted to the new company name where appropriate.

1. Introduction

1.1 General Description

This document contains measurement results of a 470-860 MHz demo amplifier (Board NA-1502) with 1x BLF881.

1.1.1 Test object details

Transistor type:	BLF881 (bolded down)
Production code:	0130 m1032 Philippines
Package:	SOT467C
Board:	BLF871 -Output BLF871 -Intput
Demo number:	NA-1502

1.2 Used Test signals

DVB-T:	DVB-T signal with ACLR @ 4.3MHz from fc

1.3 Testcircuit

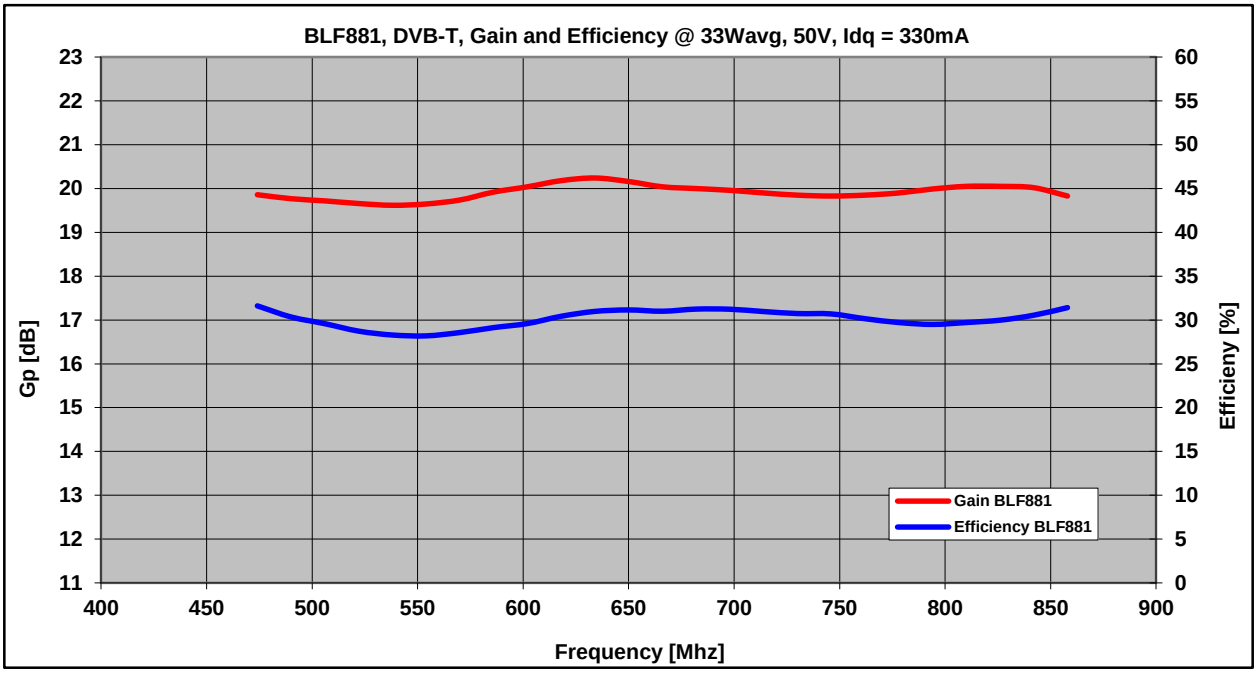
A description of this circuit can be found in **chapter 3**. The test circuit has been designed on Rogers 5880, h=0.79mm, er=2.2. Supply voltage (drain-source) is typical **50V**. Start with Vgs=1.5V and increase until **Idq=330mA**.

Please note that the pcb's we used are the same as for the BLF871.

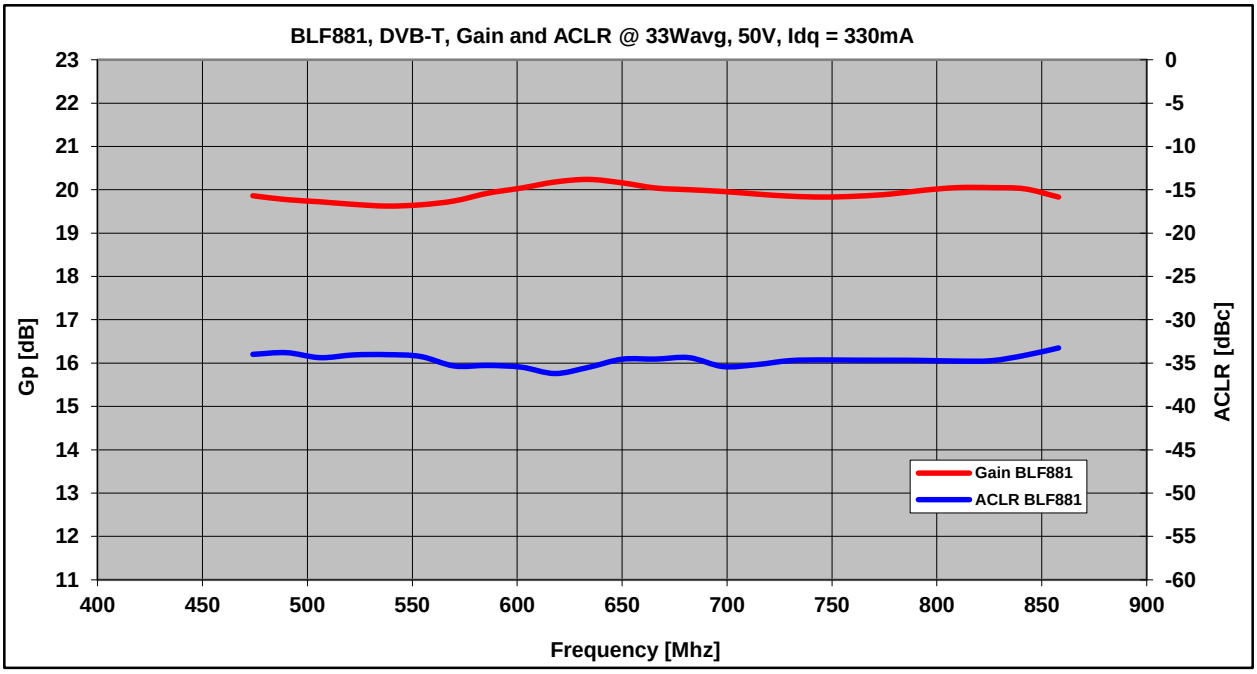
2. Measurement Results

2.1 DVB-T – Frequency Sweeps

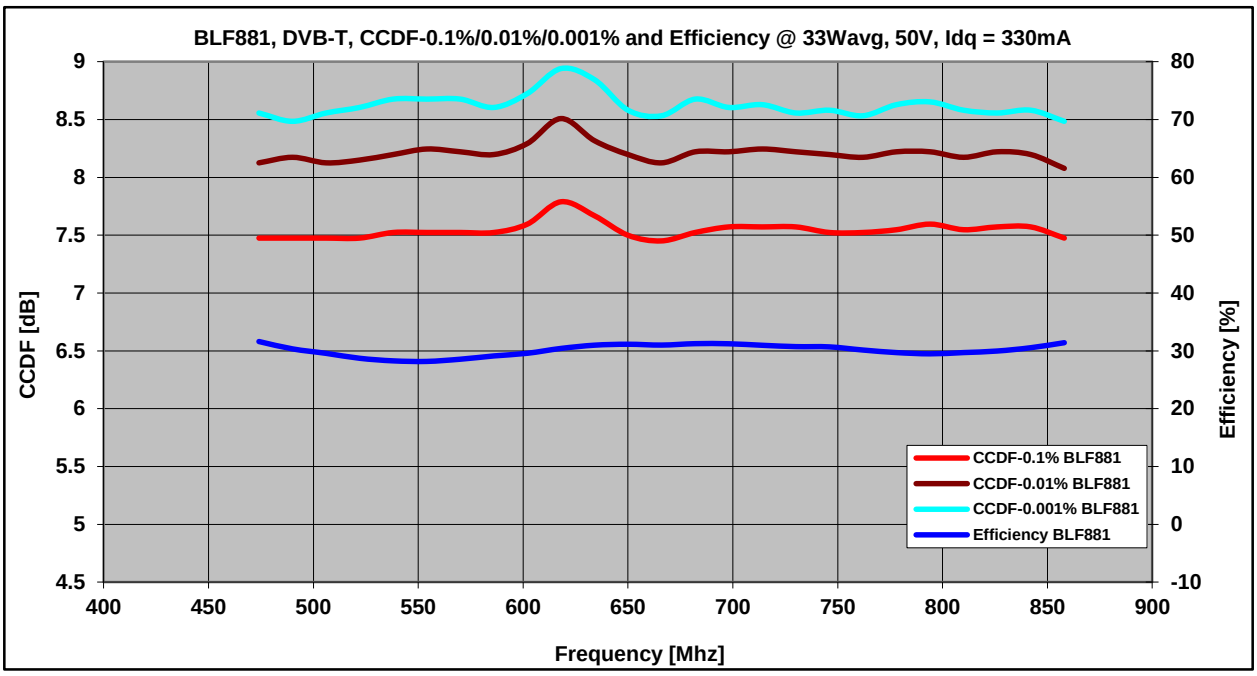
2.1.1 Gain & Efficiency



2.1.2 Gain & ACLR

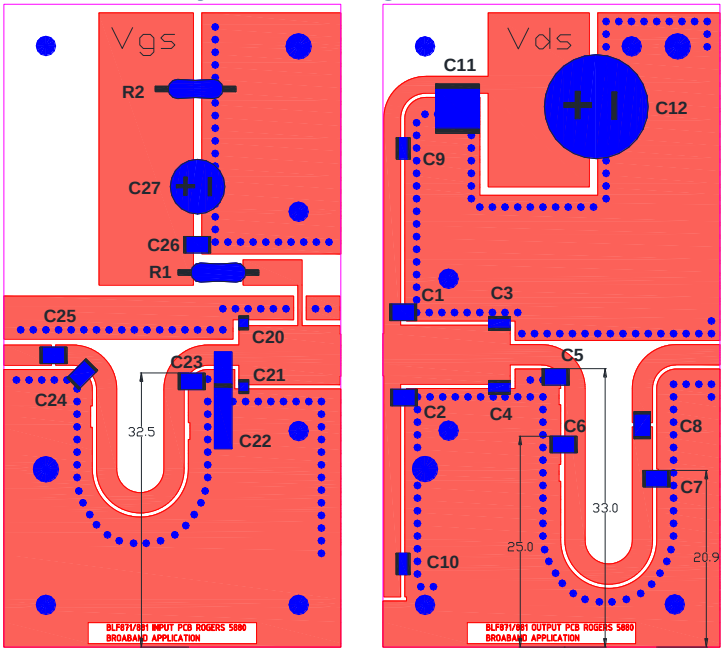


2.1.3 Efficiency & CCDF



3. PCB Layout

3.1 PCB Layout Drawing



3.2 Component list

Partslist BLF881 broadband circuit

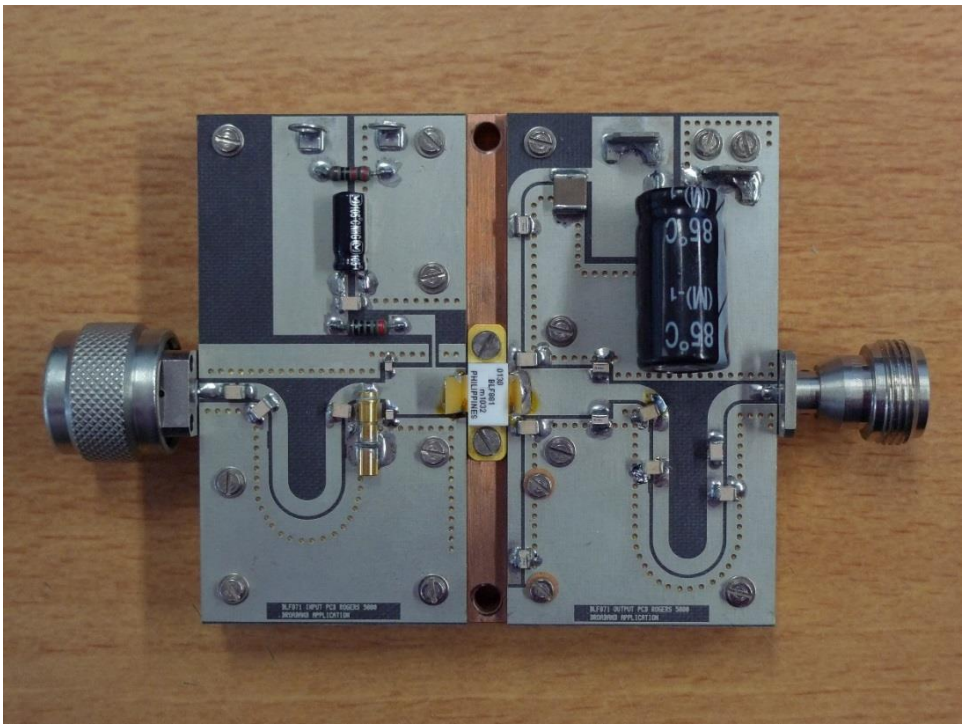
Output

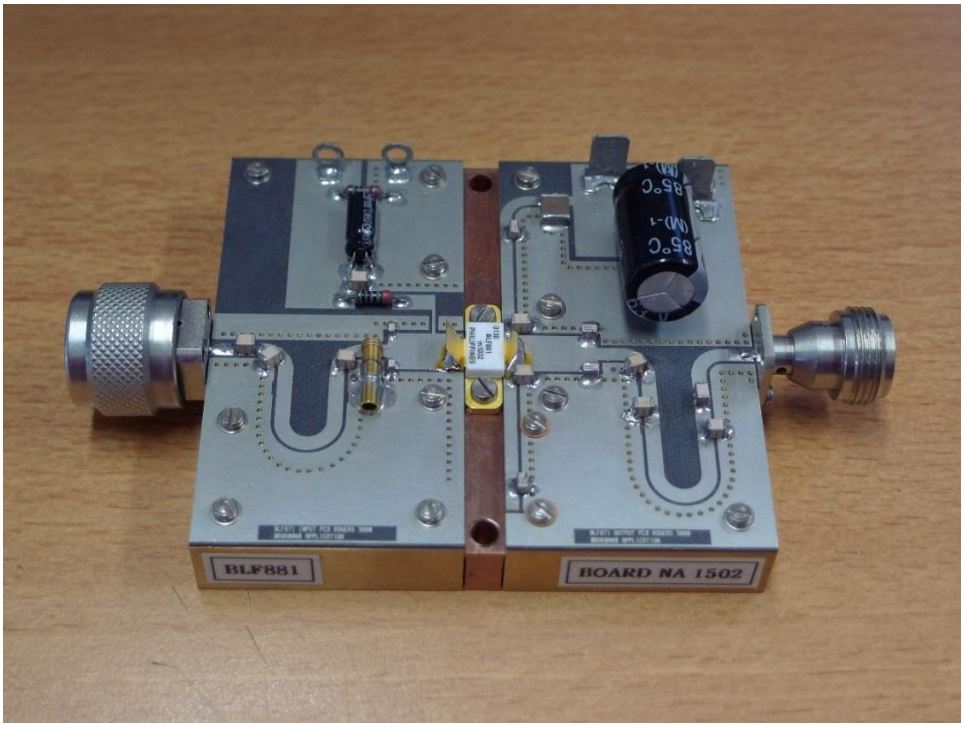
no.	value	type	comment
C1, C2	5p1	ATC100B	
C3,C4	10p	ATC180R	
C5	6p8	ATC100B	
C6	**4p7**	ATC100B	
C7	**2p7**	ATC100B	
C8	100p	ATC100B	
C9, C10	100p	ATC180R	
C11	10µF	TDK C570X7R1H106KT000N	
C12	470µF	Electrolytic Capacitor	63V
PCB		RO5880 epsr = 2.2 h = 0.79mm 95 x 80 mm Cu plating 35µ	

Input

no.	value	type	comment
C20	10p	ATC100A	
C21	8p2	ATC100A	
C22	0.8 - 8pF	Tekelec trimmer	
C23	**6p8**	ATC100B	
C24	**3p9**	ATC100B	
C25	100p	ATC100B	
C26	100p	ATC100B	
C27	10µF	Electrolytic Capacitor	63V
R1	100Ω		
R2	10kΩ		
PCB		RO5880 epsr = 2.2 h = 0.79mm 95 x 80 mm Cu plating 35µ	

4. Photos Demo Board





5. Attachments

Please see the attachment for the support files.

6. Legal information

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7. Contents

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