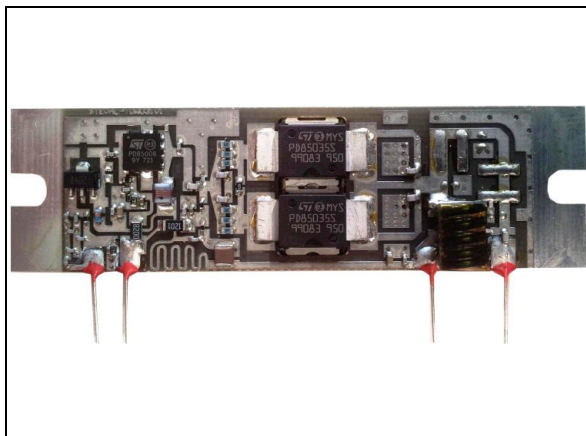

**45 W / 380-490 MHz RF power module based on the PD85035S-E
for mobile radio applications**

Data brief

**Description**

The STEVAL-TDR031V1 demonstration board is a 45 W hybrid RF power module for 12.5 V mobile radios that operate in the 380-490 MHz band.

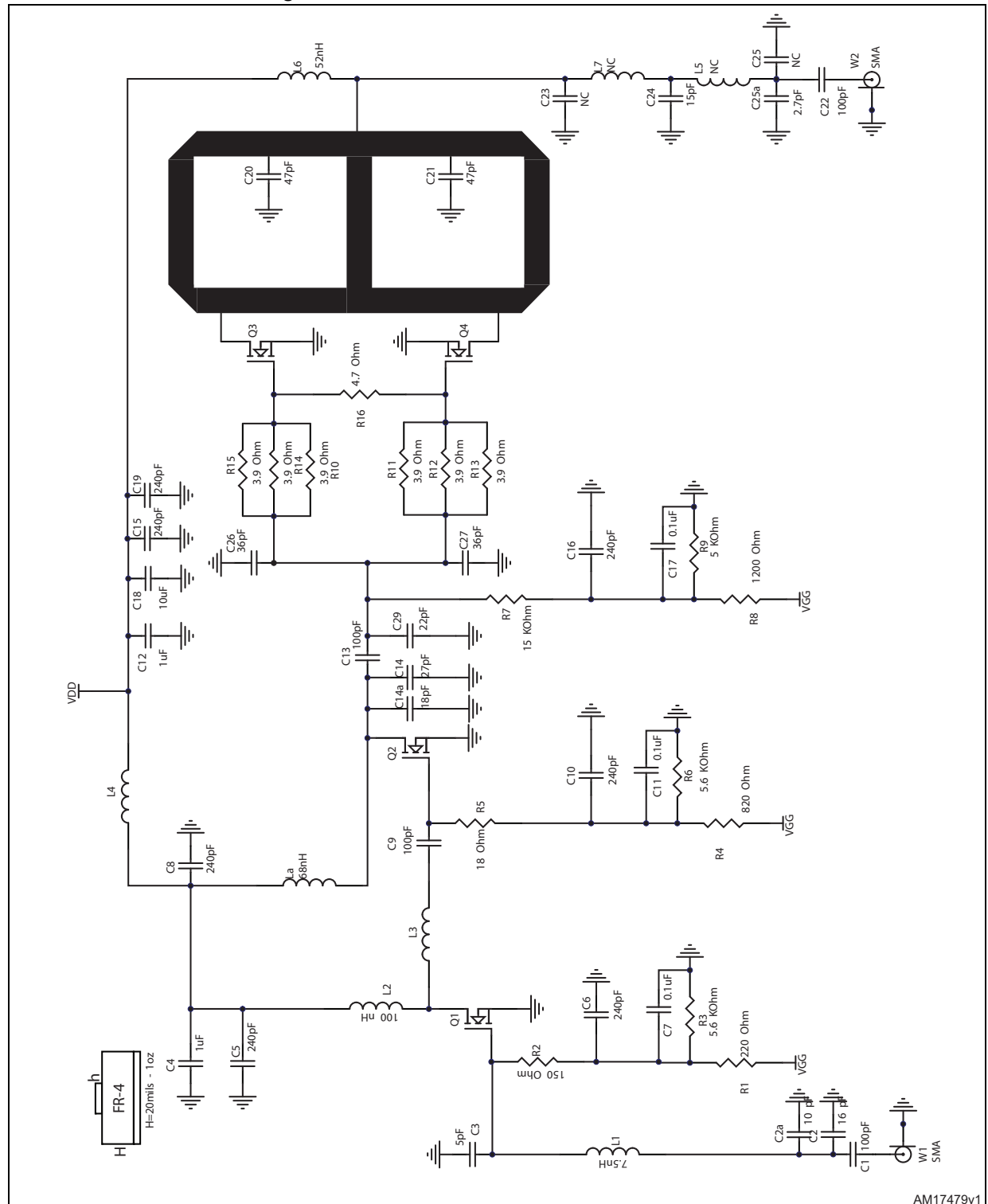
This module is a 3-stage lineup power amplifier using the PD84002, the PD85006L-E and two PD85035S-E specially designed for broadband operation, allowing power control, high gain and high efficiency.

The board uses devices in plastic packages to ensure a moisture sensitivity level not achievable with similar modules using chip-on-board technology.

Features

- N-channel enhancement-mode lateral MOSFETs ($I_{DD} \approx 0$ @ $V_{DD} = 12.5$ V, $V_{GG} = 0$)
- $P_{out} > 45$ W, $\eta_{tot} > 50\%$ @ $V_{DD} = 12.5$ V, $V_{GG} = 5$ V, $P_{in} = 5$ dBm
- Broadband frequency range: 380-490 MHz
- High moisture sensitivity level
- Low-power control current $I_{GG} = 2$ mA (typ) @ $V_{GG} = 5$ V
- ESD protection
- Development kit available to aid in production or system integration
- RoHS compliant

Figure 1. STEVAL-TDR031V1 circuit schematic



2 Revision history

Table 1. Document revision history

Date	Revision	Changes
22-Jul-2013	1	Initial release.

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