SUBJECT:
RD00HVS1 & RD02MUS1B 2-stage amplifier RF performance at f=135-175MHz, Vdd=7.2/6.5V

SUMMARY:
This application note shows the RF wide-band characteristics data (Frequency characteristics, Pout vs. Pin characteristics, Pout vs. Vdd characteristics) at f=135 to 175MHz.

- Sample history:
  RD00HVS1: Lot number “551”
  RD02MUS1B: Lot number “105AB-G”

- Evaluate conditions:
  @f=135MHz to 175MHz, Vdd=7.2V/6.5V, Idq1=50mA (Vgg1 adj.), Idq2=200mA (Vgg2 adj.)
  Typical Vgg: Vgg1=Vgg2=3.5V

- Results:
  Page 2 shows the typical frequency characteristics data @ Vdd=7.2V.
  Page 3 shows the typical frequency characteristics data @ Vdd=6.5V.
  Page 4-6 shows the typical Pout vs. Pin characteristics data @ Vdd=7.2V.
  Page 7-9 shows the typical Pout vs. Pin characteristics data @ Vdd=6.5V.
  Page 10-12 shows the typical Pout vs. Vdd characteristics data.
  Page 13-14 shows the equivalent circuit.
Frequency characteristics

@Vdd=7.2V, Pin=5mW, Idq1=50mA(Vgg1 adj.), Idq2=200mA(Vgg2 adj.)

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RD00HVS1 & RD02MUS1B 2-stage amplifier RF performance at f=135-175MHz, Vdd=7.2/6.5V

- AN-VHF-050-

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Pout vs. Pin characteristics

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Remarks: "-" is out of range.

Application Note for Silicon RF Power Semiconductors

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Pout vs. Pin characteristics
@ f=155MHz, Vdd=7.2V, Idq1=50mA(Vgg1 adj.), Idq2=200mA(Vgg2 adj.)
Pout vs. Pin characteristics
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RD00HVS1 & RD02MUS1B 2-stage amplifier RF performance at f=135-175MHz, Vdd=7.2/6.5V

- AN-VHF-050-

Pout vs. Pin characteristics

@ f=135MHz, Vdd=6.5V, Idq1=50mA(Vgg1 adj.), Idq2=200mA(Vgg2 adj.)

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Remarks: "-" is out of range.
RD00HVS1 & RD02MUS1B 2-stage amplifier RF performance at f=135-175MHz, Vdd=7.2/6.5V - AN-VHF-050-

Pout vs. Pin characteristics
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Remarks: **"-"** is out of range.

Application Note for Silicon RF Power Semiconductors
Pout vs. Pin characteristics

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Remarks: "-" is out of range.
Pout vs. Vdd characteristics

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Pout vs. Vdd characteristics

@ f=155MHz, Pin=5mW, Idq1=50mA(Vgg1 adj.), Idq2=200mA(Vgg2 adj.)

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Application Note for Silicon RF Power Semiconductors

Pout vs. Vdd characteristics
@ f=175MHz, Pin=5mW, Idq1=50mA(Vgg1 adj.), Idq2=200mA(Vgg2 adj.)
RD00HVS1 & RD02MUS1B 2-stage amplifier RF performance at f=135-175MHz, Vdd=7.2/6.5V

- AN-VHF-050-

Equivalent Circuit

Application Note for Silicon RF Power Semiconductors
RD00HVS1 & RD02MUS1B 2-stage amplifier RF performance at f=135-175MHz, Vdd=7.2/6.5V - AN-VHF-050-

Equivalent Circuit (parts list)

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