



45 dB Gain, 100 Watt Psat, 700 MHz to 2.7 GHz,
High Power High Gain Amplifier, GaN, SMA

TECHNICAL DATA SHEET

PE15A5033

The PE15A5033 is a 100 W high gain Class A/AB Coaxial Linear Power Amplifier operating in the 0.7 to 2.7 GHz frequency range. The amplifier offers 100 Watts typical saturated power and 45 dB minimum small signal gain with ± 1.5 dB typical gain flatness. The amplifier requires typically a +30V DC power supply. The SMA connectorized module is unconditionally stable and operates over the temperature range of 0°C and +50°C.

Features

- 0.7 GHz to 2.7 GHz Frequency Range
- Psat 100 Watts typ
- Small Signal Gain: 45 dB min
- Gain Flatness ± 1.5 dB typ
- Switching Time 5 usec max
- 50 Ohms Input and Output Matched
- Unconditionally Stable
- Regulated Supply
- RF Input Signal Format: CW/AM/FM/Pulse
- Efficiency (PAE) 30% Typical

Applications

- Military Radio
- Communication Systems
- High Gain Driver Power Amplifier
- High Gain Output Power Amplifier

Electrical Specifications (TA = +25°C, DC Voltage = 30Volts)

Description	Minimum	Typical	Maximum	Units
Frequency Range	0.7		2.7	GHz
Small Signal Gain	45			dB
Gain Flatness @ Psat		± 1.5	± 2	dB
Input Power		+7	+10	dBm
Psat	+49.5	+50		dBm
Efficiency (PAE)	25	30		%
Harmonics		-20	-15	dBc
Spurious		-70	-60	dBc
Input VSWR			2:1	
Switching Speed for On/Off Switch Gate			5,000	usec
TTL Control	"1": On, "0": Off, Enable: 5V, Disable: 0V			
Operating DC Voltage		30		Volts
DC Consumption			500	Watts
Operating Temperature Range	0		+50	°C

Click the following link (or enter part number in "SEARCH" on website) to obtain additional part information including price, inventory and certifications: [45 dB Gain, 100 Watt Psat, 700 MHz to 2.7 GHz, High Power High Gain Amplifier, GaN, SMA PE15A5033](#)



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Mechanical Specifications

Size

Length	7.25 in [184.15 mm]
Width	4.25 in [107.95 mm]
Height	0.95 in [24.13 mm]
Weight	2 lbs [907.18 g]
Input Connector	SMA Female
Output Connector	SMA Female
Cooling	ADEQUATE HEATSINK REQUIRED

Environmental Specifications

Temperature

Operating Range	0 to +50 deg C
Humidity	95% Non-Condensing
Shock	Normal Truck Transport
Vibration	Normal Truck Transport
Altitude	10000 feet Above Sea Level

Compliance Certifications (visit www.Pasternack.com for current document)

Not RoHS Compliant

Plotted and Other Data

Notes:

- Values at +25 °C, sea level
- ESD Sensitive Material, Transport material in Approved ESD bags. Handle only in approved ESD Workstation.
- Heat Sink Required for Proper Operation, Unit is cooled by conduction to heat sink.



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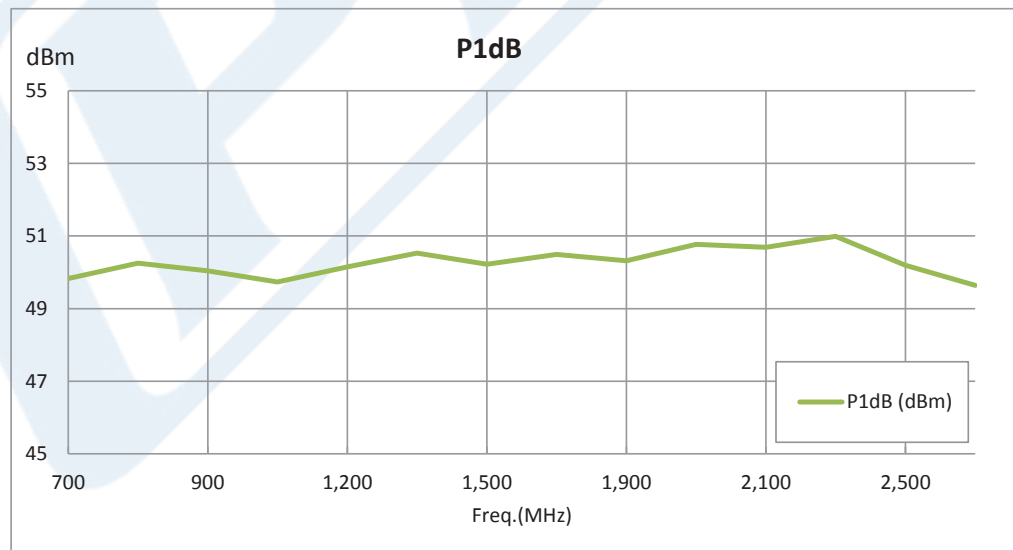
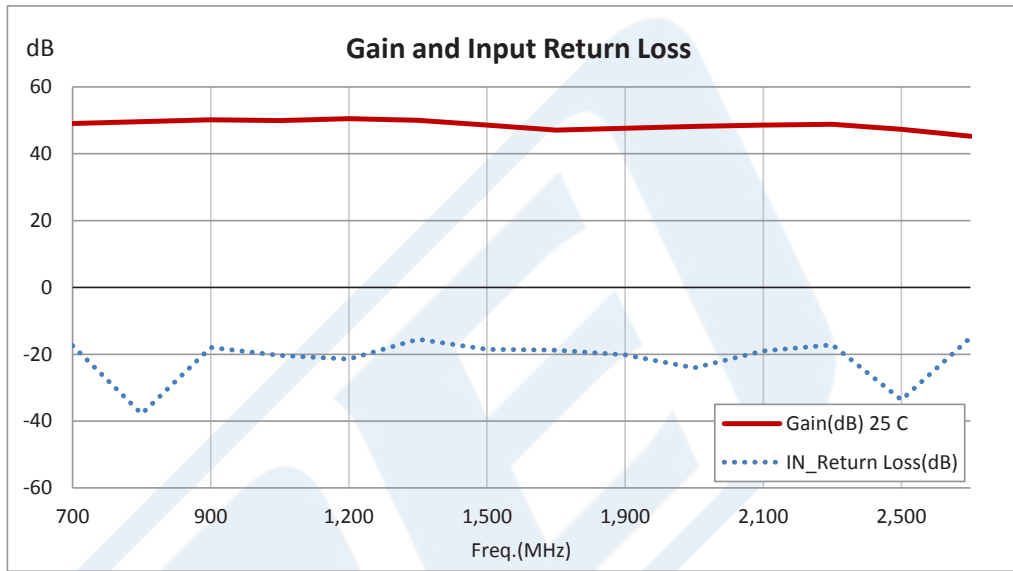


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Typical Performance Data



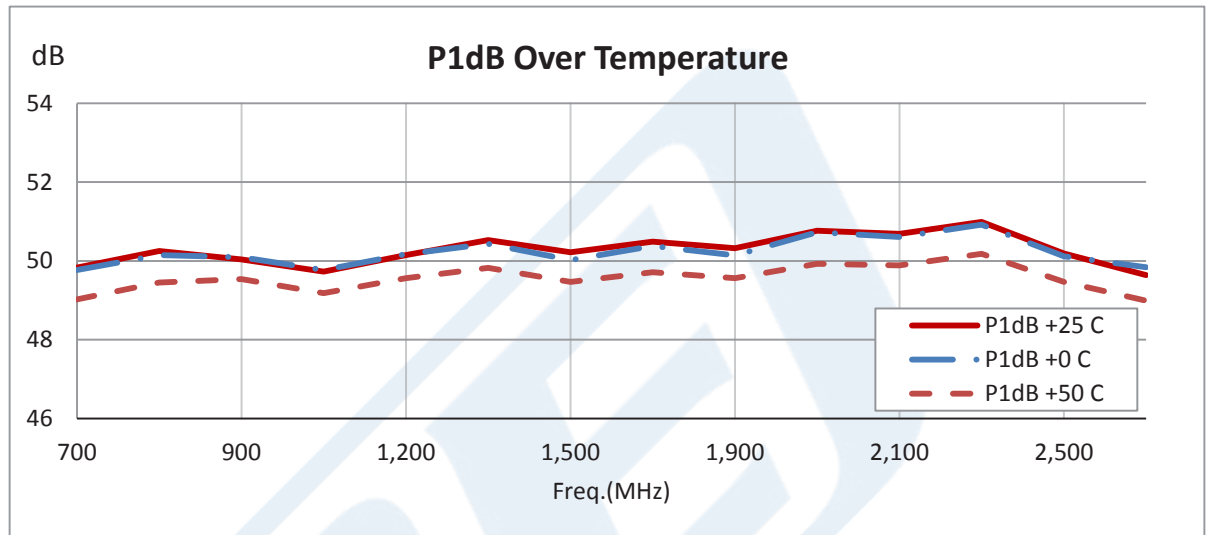
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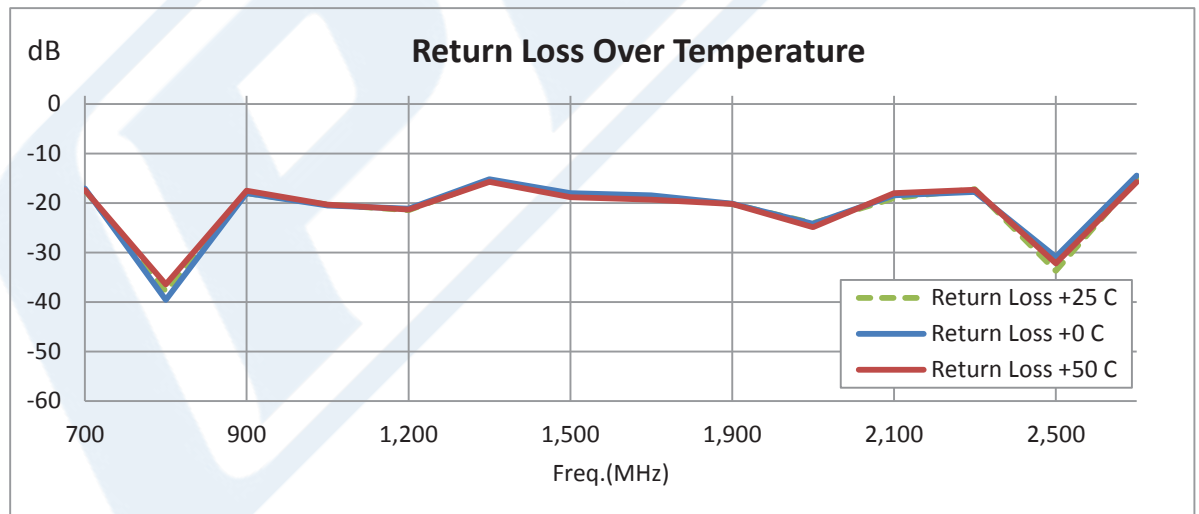
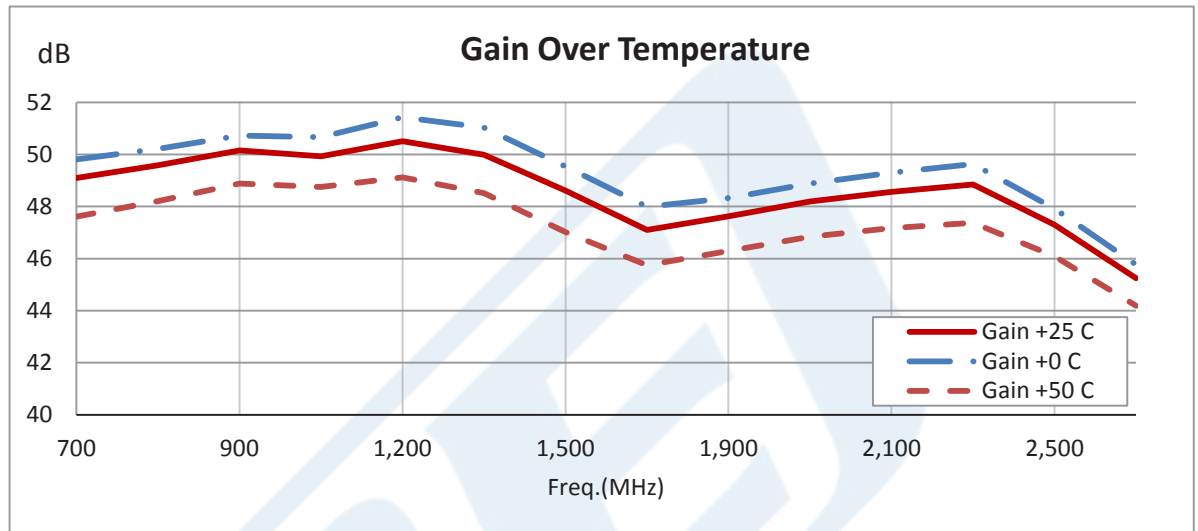
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45 dB Gain, 100 Watt Psat, 700 MHz to 2.7 GHz, High Power High Gain Amplifier, GaN, SMA from Pasternack Enterprises has same day shipment for domestic and International orders. Our RF, microwave and millimeter wave products maintain a 99% availability and are part of the broadest selection in the industry.

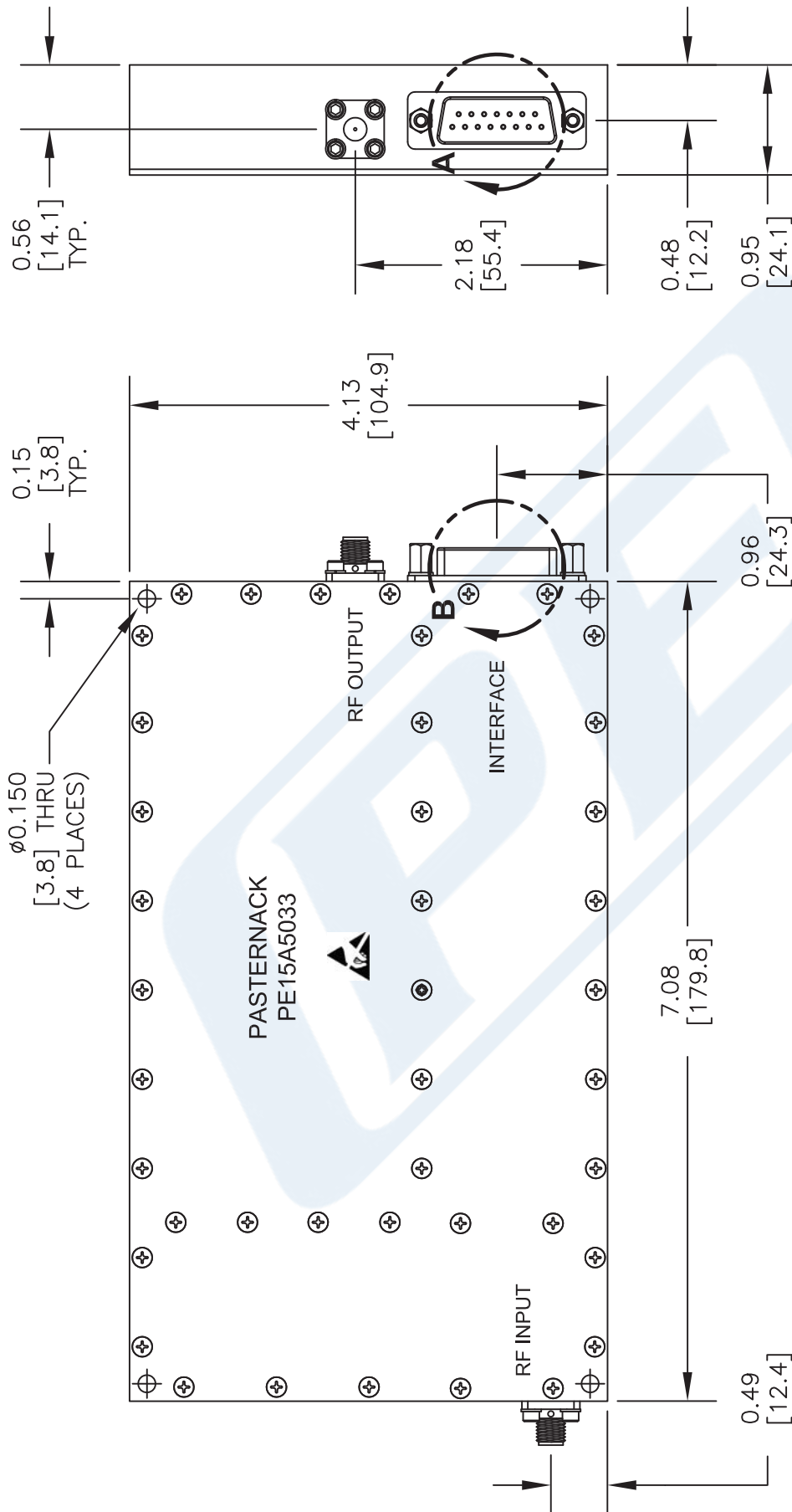
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The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. Pasternack reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Pasternack does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Pasternack does not assume any liability arising out of the use of any part or documentation.

PE15A5033 CAD Drawing

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DWG TITLE

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NOTES:
1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL.
2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME.
3. DIMENSIONS ARE IN INCHES [mm].

FSCM NO. 53919

CAD FILE 050115

SCALE N/A

SIZE A

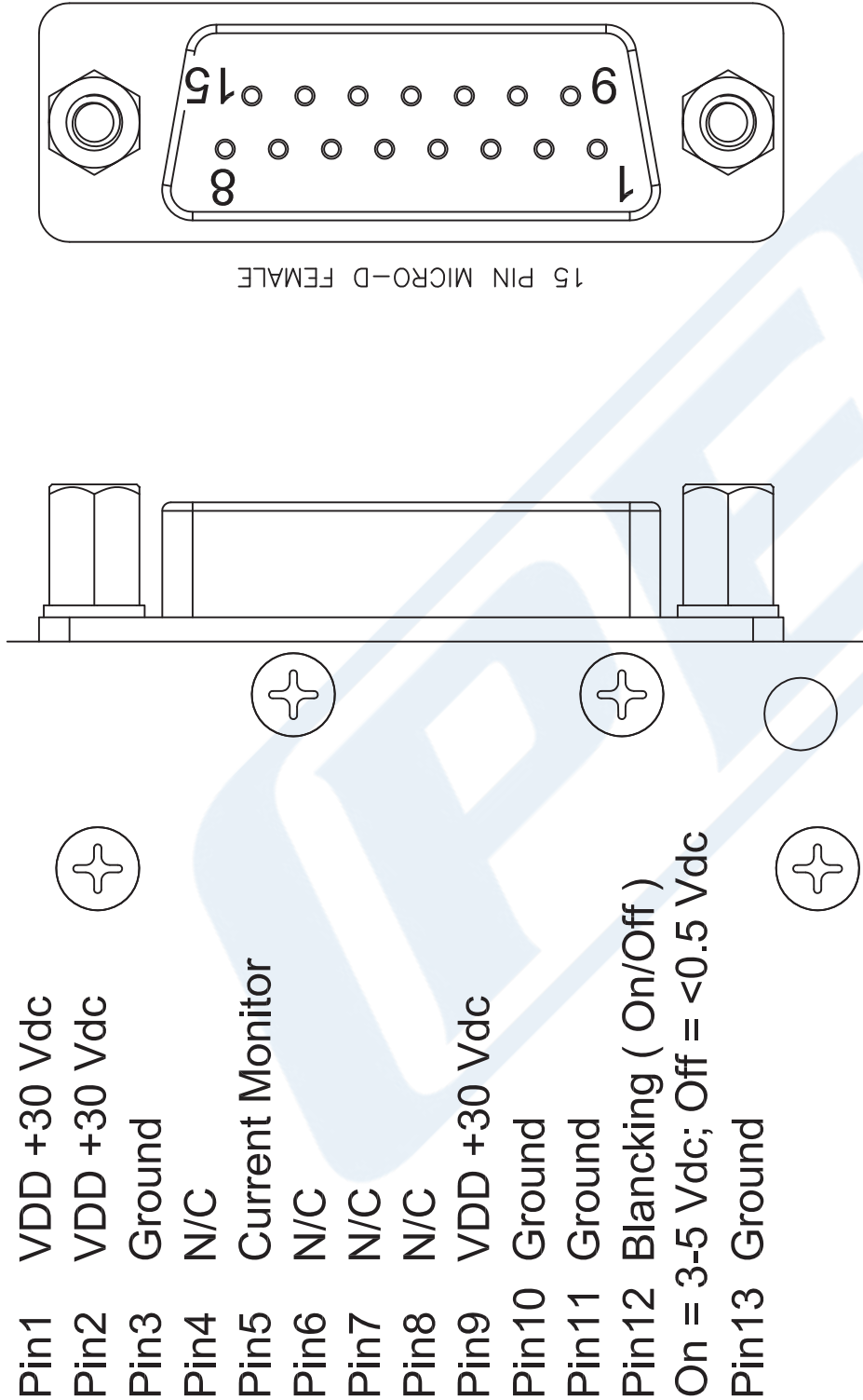
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PE PASTERNAK
THE ENGINEER'S RF SOURCE

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View A

View B

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