F1490 INITIAL DESIGN VALIDATION DATA

2019 OCTOBER 30



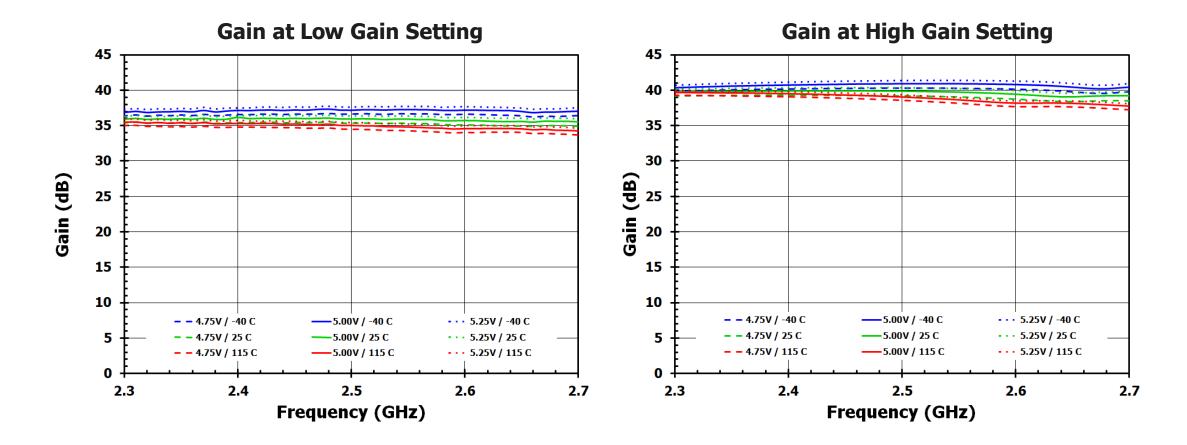
EXECUTIVE SUMMARY

- Measurement data of key F1490 RF parameters across operating voltage and temperature presented.
- Single BOM used for both low gain and high gain modes.
- BOM optimized for low gain mode performance.
- Performance can be improved for high gain mode with optimal BOM.

2.3GHZ – 2.7GHZ BOM DATA

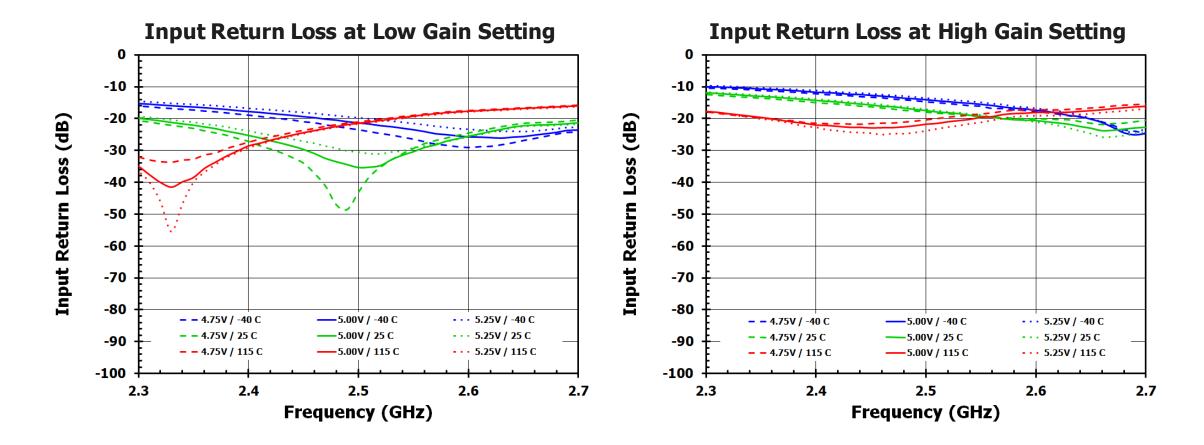


S-PARAMETERS (1 OF 4)



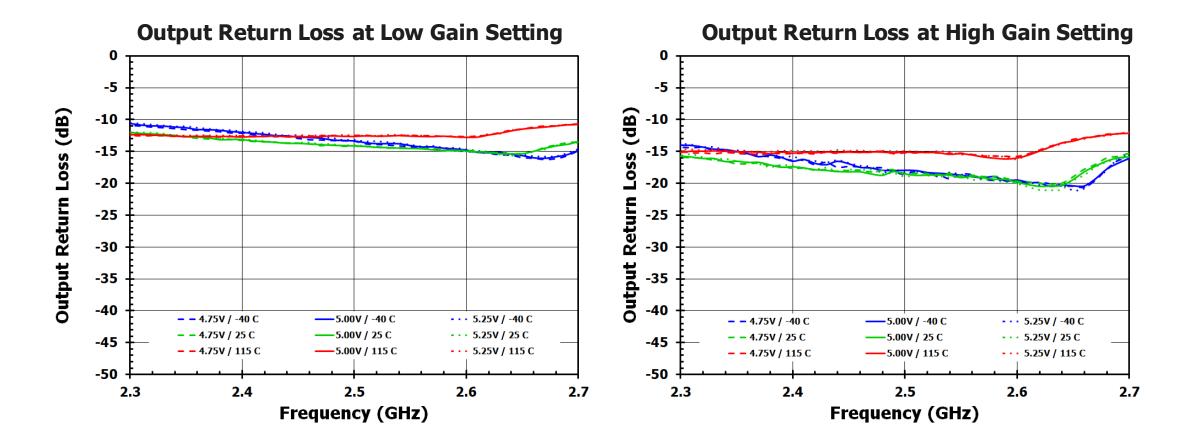
BIG IDEAS FOR EVERY SPACE RENESAS

S-PARAMETERS (2 OF 4)

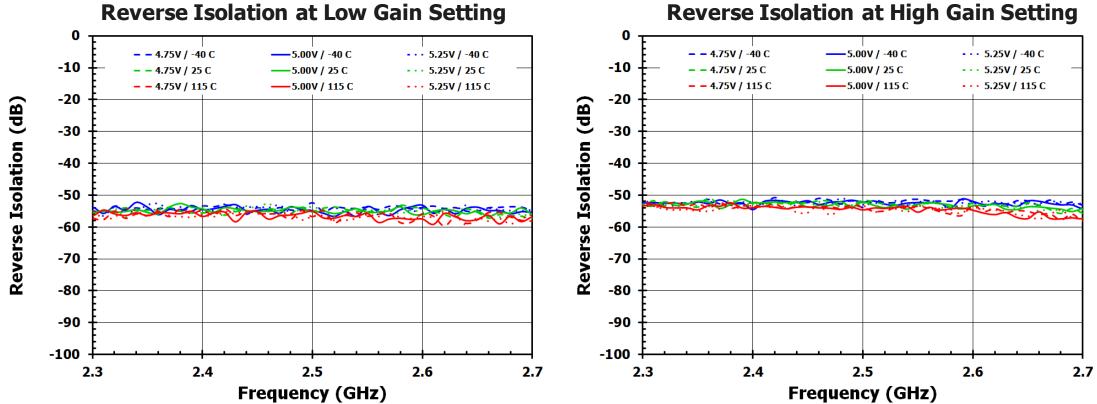


BIG IDEAS FOR EVERY SPACE RENESAS

S-PARAMETERS (3 OF 4)



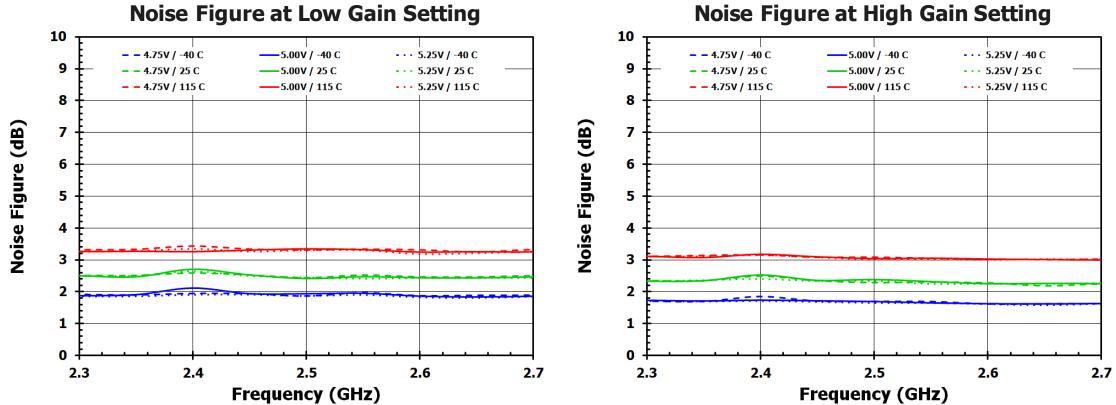
S-PARAMETERS (4 OF 4)



Reverse Isolation at High Gain Setting



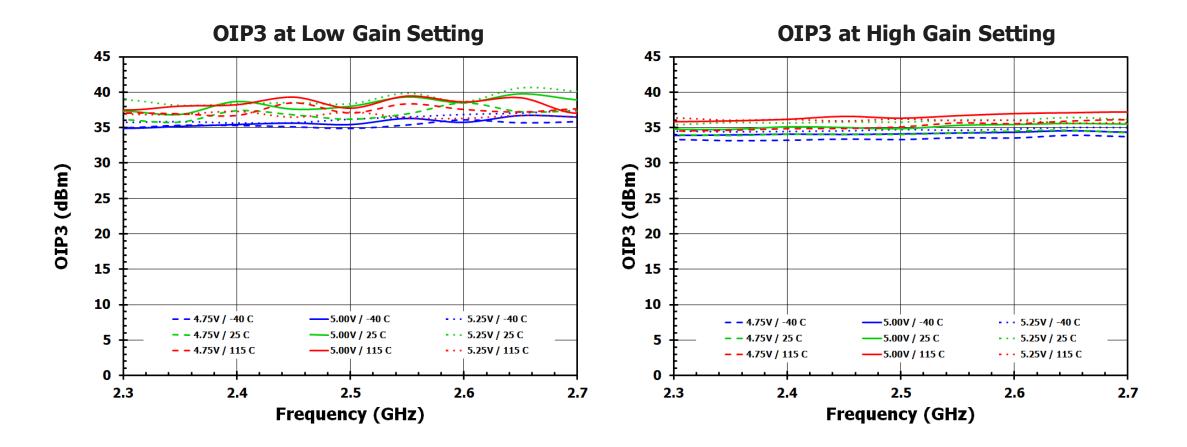
NOISE FIGURE



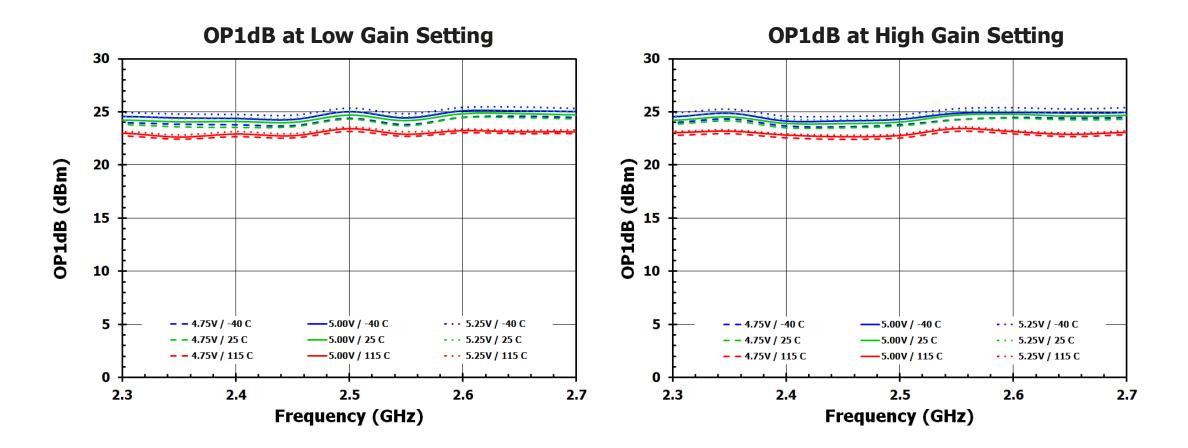




OIP3



OP1DB



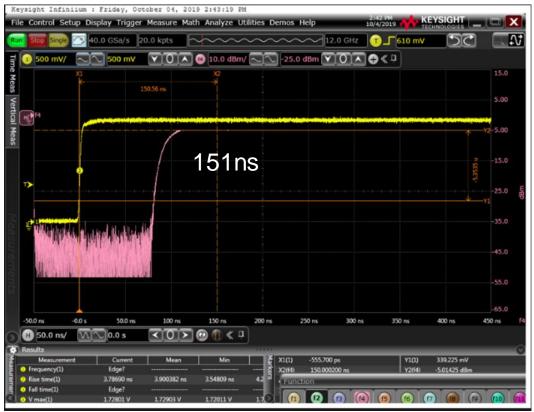


SWITCHING TIME

Power OFF time Low Gain Setting



Power ON time Low Gain Setting





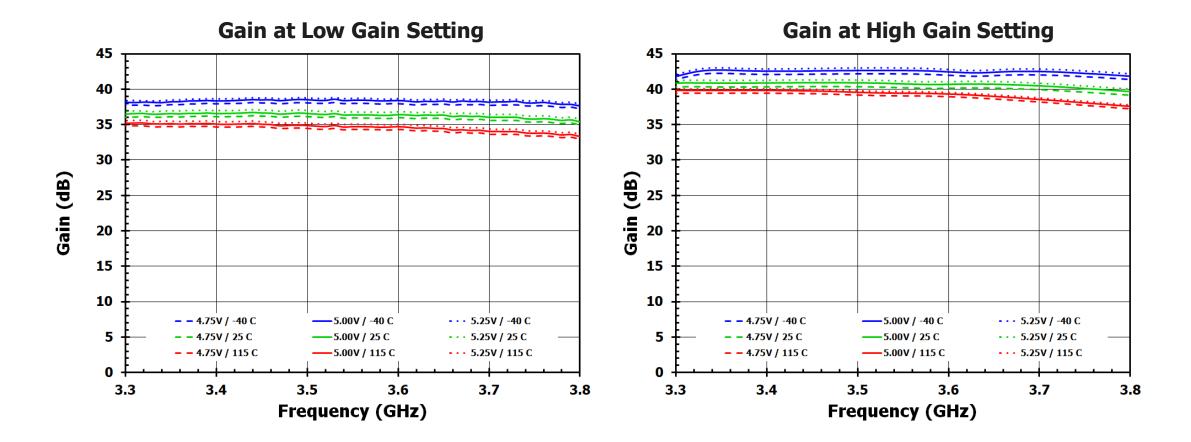
CURRENT CONSUMPTION

Gain Setting	4.75V / -40C	5.00V / -40C	5.25V / -40C	4.75V / 25C	5.00V / 25C	5.25V / 25C	4.75V / 115C	5.00V / 115C	5.25V / 115C
Low Gain	72	80	87	64	70	76	60	66	70
High Gain	72	80	87	64	72	77	61	66	70

3.3GHZ – 3.8GHZ BOM DATA

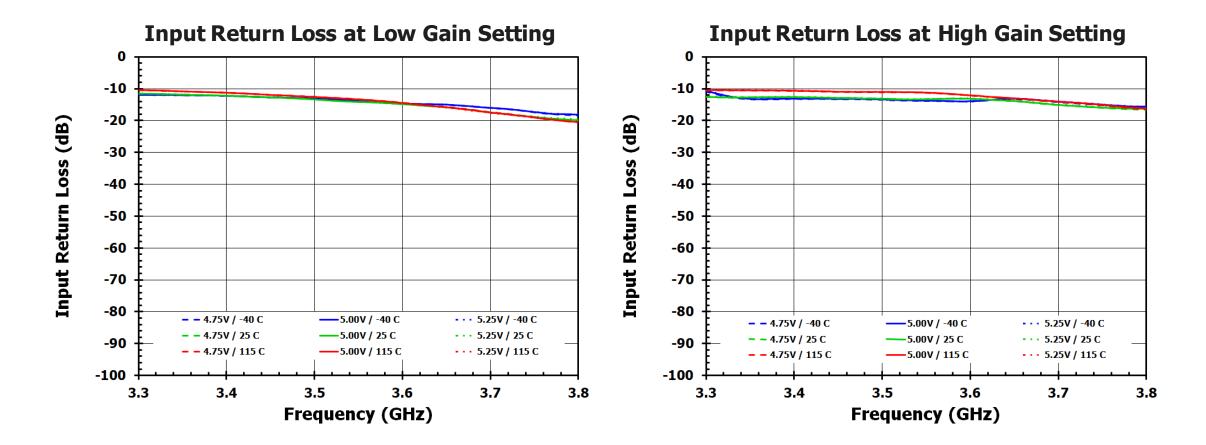


S-PARAMETERS (1 OF 4)

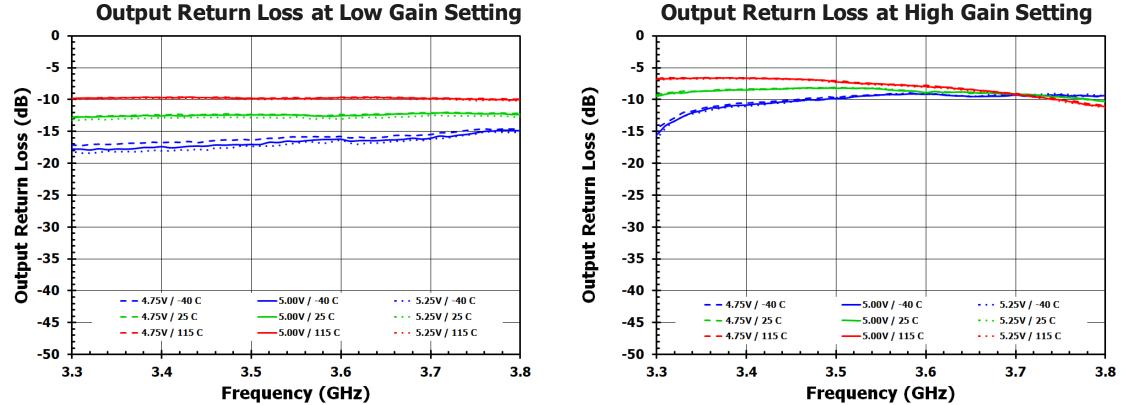


BIG IDEAS FOR EVERY SPACE RENESAS

S-PARAMETERS (2 OF 4)



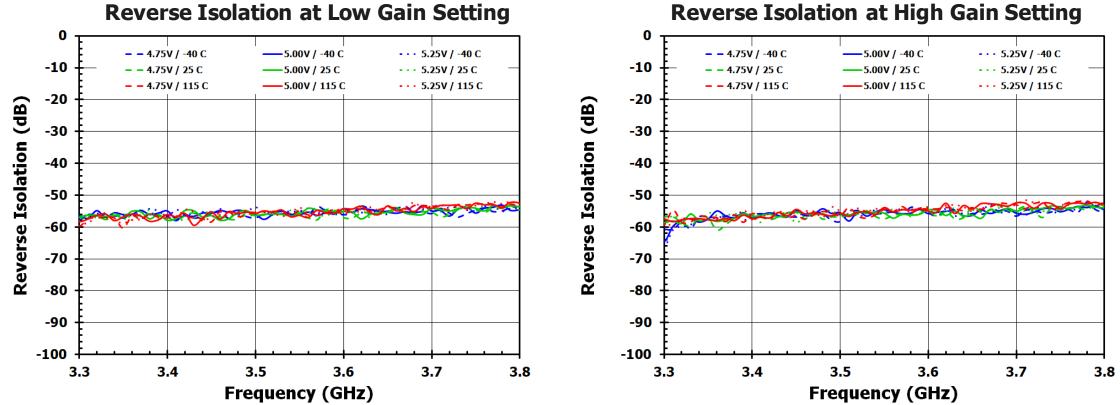
S-PARAMETERS (3 OF 4)



Output Return Loss at High Gain Setting



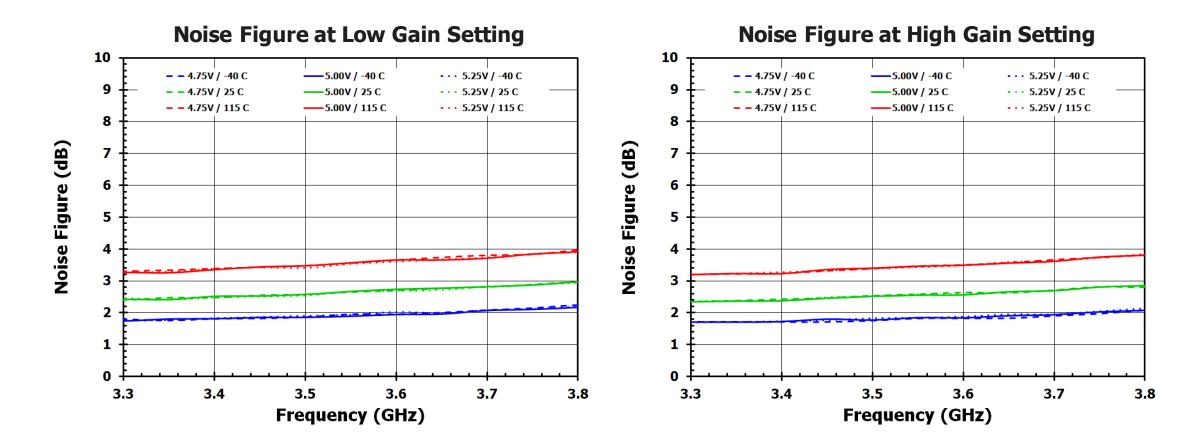
S-PARAMETERS (4 OF 4)



Reverse Isolation at High Gain Setting

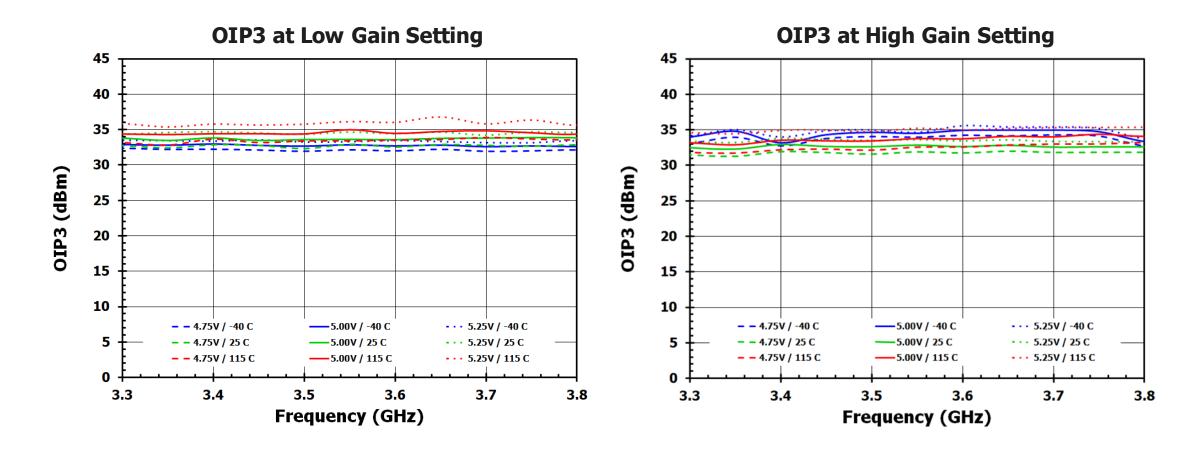


NOISE FIGURE



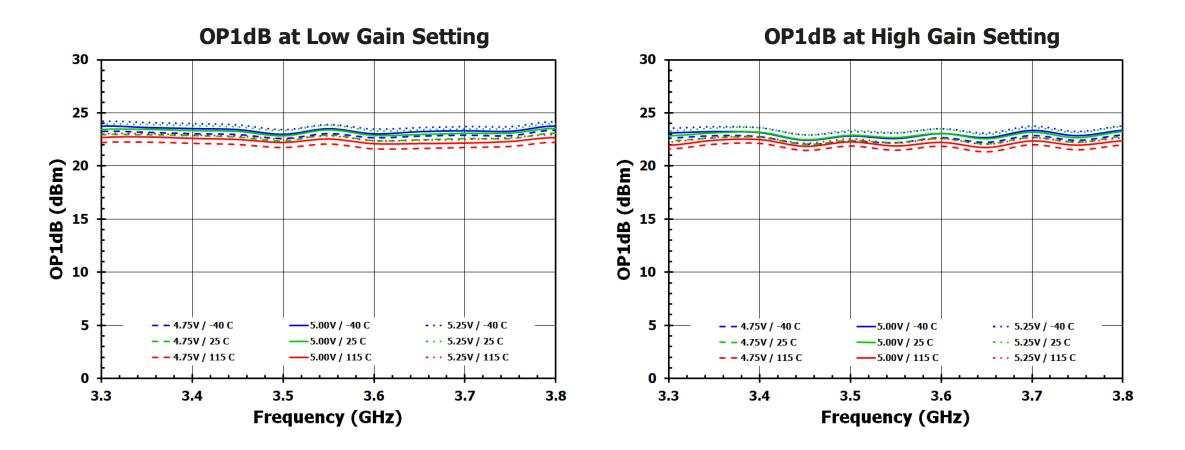


OIP3





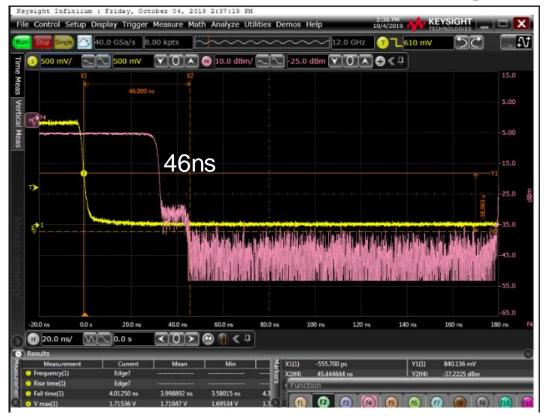
OP1DB



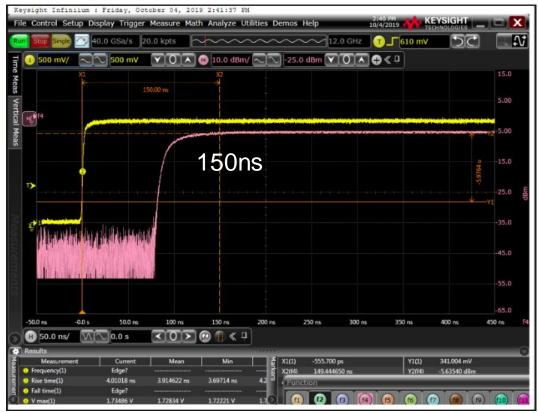


SWITCHING TIME

Power OFF time Low Gain Setting



Power ON time Low Gain Setting





CURRENT CONSUMPTION

Gain Setting	4.75V / -40C	5.00V / -40C	5.25V / -40C	4.75V / 25C	5.00V / 25C	5.25V / 25C	4.75V / 115C	5.00V / 115C	5.25V / 115C
Low Gain	80	88	96	68	74	80	65	69	74
High Gain	80	88	96	68	74	80	65	70	75

THANKYOU

