



The GMSL2 Specification

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Motivation and Scope

- There were many references to GMSL specification
 - Size : Broedel_matheus_dm_01_size_07152024.pdf
 - Power : Chini_Tazebay_3dm_01a_0724.pdf
- Goal: to summarize the relevant specification
- This is based on the data on ADI website
- GMSL2
 - Serializer [MAX96717](#)
 - Deserializer [MAX96724](#)
- No data sheet for GMSL3

Data Rate and Reach

Line rate	Net data rate	3.2mm, 50ohm, Coax, Foam Dielectric **	2.7mm, 50ohm, Coax, Foam Dielectric **	100ohm Shielded Twisted Pair **
6Gbps/187.5Mbps	5.2Gbps/???*	15	9	11
3Gbps/187.5MBps	2.6Gbps/???*	20	10	8

* [MAX 96717](#) , table 1

* [gmsl2-general-user-guide](#) , table 44

** "Rate Typical Maximum Cable Length at 105°C"

Power and Bill of Material

- Power

- [MAX 96717](#), page 14
- Consistent with power numbers in Chini_Tazebay_3dm_01a_0724

Data rate	Typical Power	Maximum Power
VDD18	87	101
VDD	103	234
Total (mw)	190	335

- Bill of material

- Crystal-free operation
- 5mm*5mm TQFN

Control Signal Latency

- Latency depends on the type of data and direction of the data

	serializer to deserializer	derializer to serializer
I2C latency*	<10usec	<10usec
GPI to GPO delay (typical)**	1usec	6usec

* [MAX 96724](#) , table 6

** [MAX 96717](#) , table 9

References

<https://www.analog.com/media/en/technical-documentation/data-sheets/max96717.pdf>

<https://www.analog.com/media/en/technical-documentation/data-sheets/max96724.pdf>

<https://www.analog.com/media/en/technical-documentation/user-guides/max96717fr-user-guide.pdf>



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