



DRAM

DDR4

ISSI DDR4 Product Features:

- Standard Voltage: VDD = VDDQ = 1.2V, VPP=2.5V
- Data Integrity
 - Auto Self Refresh (ASR) by DRAM built-in TS
 - Auto Refresh and Self Refresh Modes
- DRAM access bandwidth
 - Separated IO gating structures by Bank Group
 - Self Refresh Abort
 - Fine Granularity Refresh
- Signal Synchronization
 - Write Leveling via MR settings
 - Read Leveling via MPR
- Reliability & Error Handling
 - Command/Address Parity
 - Data bus Write CRC
 - MPR readout
 - Boundary Scan [x16]
- Speed Grade [CL-TRCD-TRP]
 - 2100Mbps / 15-15-15 [-093P]
 - 2400Mbps / 16-16-16 [-083R]
- Signal Integrity
 - Internal VREFDQ Training
 - Read Preamble Training
 - Gear Down Mode
 - Per DRAM Addressability
 - Configurable DS for system compatibility
 - Configurable On-Die Termination
 - Data bus Inversion (DBI)
 - ZQ Calibration for DS/ODT impedance accuracy via external ZQ pad [240 ohm +/-1%]
- Power Saving and efficiency
 - POD with VDDQ termination
 - Command/Address Latency [CAL]
 - Maximum Power Saving
 - Low power Auto Self Refresh [LPASR]
- Operating Temperature
 - Commercial [Tc = 0C to + 95C]
 - Industrial [Tc = -40C to + 95C]
 - Automotive, A1 [Tc = -40C to + 95C]
 - Automotive, A2 [Tc = -40C to + 105C]

Applications:

- **Telecom/Networking**
 - SDN, NFV
 - Access & Aggregation Nodes
 - Switches and Routers
 - Packet Optical Transport
 - Network Storage
 - [PON OLT, DSLAM, CMTS, Wireless]
- **Automotive**
 - Infotainment
 - Telematics
 - Driver Information Systems
- **Industrial**
 - Human Machine Interface
 - Embedded Computing

ISSI DDR4 SDRAM Ordering Options

Den	Speeds	Part No.	Org.	Pkg.	Ordering Options	Status
4G	2400,2100,1866,1600	IS43QR85120A	512Mx8	BGA[78]	-093PBL, -093PBLI, -083RBL, -083RBLI	S=Q4/16
	2400,2100,1866,1600	IS43QR16256A	256Mx16	BGA[96]	-093PBL, -093PBLI, -083RBL, -083RBLI	S=NOW

ISSI DDR4 SDRAM Automotive Ordering Options

Den	Speeds	Part No.	Org.	Pkg.	Ordering Options	Status
4G	2400,2100,1866,1600	IS46QR85120A	512Mx8	BGA[78]	-093PBLA1, -093PBLA2, -083RBLA1, -083RBLA2	S=Q4/16
	2400,2100,1866,1600	IS46QR16256A	256Mx16	BGA[96]	-093PBLA1, -093PBLA2, -083RBLA1, -083RBLA2	S=NOW