



Q1'11 Product Reliability Monitor Report for Jazz SBC18QLD/HXL/HAZ/H2

Revision History

Version	ECR	Date	Modifications / Changes
0	156322	May 2011	New document

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1 Jazz Reliability Monitor Report

1.1 Test Vehicle selection.

GN7355 was selected as the product to monitor during Q1 HTOL run. It is a transceiver chip specifically designed for 10G EPON ONU applications. The transmit DFB laser driver is customized for the high drive requirements of the upstream laser and features programmable on/off times. To enable sufficient headroom, the output stage can operate with a 5V or 3.3V supply, dependant upon laser forward voltage, and performance is optimized for DC coupling to the TOSA. Input equalisation is available for jitter optimisation.

The automatic power control loop adjusts the bias current to compensate for laser aging and environment change. This ensures optimal performance over the life of the ONU. Temperature feed forward is provided to maintain adequate extinction ratio over temperature and to enable rapid burst start-up at power on. The receive side features a limiting amplifier plus a reference free CDR which significantly improves the robustness of the highspeed serial links by resetting the jitter budget. Digital diagnostics and monitoring capability are integrated, with option of being compliant with SFF8472.

This functionality can be disabled by additional down-bond to GND – this is expected to be the initial configuration. On-chip integration of control and diagnostic features enables low cost module design as an external microcontroller is not required. In this application, initial settings can be downloaded from a low cost external EEPROM. If an increased level of customization is required, the GN7355 has the option to interface with an external microcontroller.

1.2 Product Scope

Table 1 lists the products covered by this monitor report.

Table 1.: Product Scope

Product
GS2984, GS2964, GS2985, GS2986, GS2965 , GS2989, GS2988, GN2406, GN2405, GN2003S, GN2013A, GN2023, GN2013C, GN1113, GN2004S, GN2024, GN2014, GN2014A, GN1114, GN1155, GN1153B, GN1153C, GN1454S, GN1554S, GN1054L, GN1052, GN1032, GN1052, GN1020, GN1041, GN1449, GN1250, GV8502, GN1058, GN1055, GN1057, GN1557,GN2010D, GN2010E, GN2012, GN2017, GN2033, GN2010EA, GN1411, GN1411A, GN1412, GN1412A, GN7350, GN2012A, GN2405A, GN7355

1.3 Summary Data

Table 2.: Summary Data

Process Technology	Test Vehicle	Stress	Duration	Sample Size	Results
Jazz SBC18QLD/HXL/HAZ/H2	GN7355	HTOL, 125°C, Vmax	1000	93	Pass

DOCUMENT IDENTIFICATION

RELIABILITY REPORT

The product is in production. Gennum reserves the right to make changes to the product at any time without notice to improve reliability, function or design, in order to provide the best product possible.

CAUTION

ELECTROSTATIC SENSITIVE DEVICES
DO NOT OPEN PACKAGES OR HANDLE EXCEPT
AT A STATIC-FREE WORKSTATION



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