

Equities

15 March 2011 | 6 pages

Eastern Japan earthquake/Consumer electronics/electronic components

Alert: Update 2 – Potential indirect damage gradually becoming clearer

- Industry Overview
- The Japan Earthquake

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- **Further update on earthquake impact** – In light of information gathered on March 15, it has become even clearer that the restoration of electric power and other infrastructure is critical. Furthermore, the suspension of operations at parts and materials plants pose a risk to the production of electronic components, and the potential impact from the convergence of multiple effects is gradually becoming clearer. Some details can be found on the following page; please also see our previous notes: [Primary damage from quake limited](#) and [Update 1 – Restoring infrastructure is key](#)
- **Restoration of power could take from several days to a month** – Restoring infrastructure is crucial. While most companies have announced that the damage to buildings and facilities is not severe, many say they are waiting for the restoration of power and the end of rolling blackouts to resume mass-production. Comments indicate that companies expect it will take from several days to a month to restore power.
- **Convergence of multiple effects gradually becoming clearer** – The suspension of operations at plants run by Mitsubishi Gas Chemical and Hitachi Chemical seems to have interrupted supplies of copper-clad laminates, a key material used in package substrates. We estimate the two companies supply 70%–80% of the market between them. Package substrates are used in products including Intel CPUs and application processors for smartphones and tablet PCs. Our channel checks suggest that package substrate makers have about two weeks' of materials stockpiled, and the materials makers probably also have a few weeks' worth set aside if they are not damaged. Hitachi Chemical's facilities are likely to resume operations relatively quickly, and we do not expect a major impact on production, but it shows how this kind of convergence of effects could have an impact on other product areas in the days ahead. Canon announced that it will suspend operations at its Oita factory for three days due to problems sourcing components.

See Appendix A-1 for Analyst Certification, Important Disclosures and non-US research analyst disclosures.

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Figure 1. Overview of electronic component, consumer electronics, and semiconductor companies

Code	Name	Date	Source	Comments
6594	Nidec	3/15	Company announcement	Nidec Copal: Ichinoseki plant (precision small motors, etc.) operating 3/15, Koriyama R&D center (optical devices, industrial printers) open 3/15 Nidec Copal Precision Parts : Fukushima plant (dies, etc.) open 3/15, Koriyama plant (dies, etc.) open 3/15 Copal Electronics: Tajiri office (circuit components) closed 3/15 Nidec Nissin Tohoku (plastic forming, etc.) operating 3/15
6767	Mitsumi Electric	3/14 16:10	Company announcement	No major damage to buildings or facilities, but business activities scaled back in response to scheduled power outages. Headquarters: Curtailing business to fit planned power outages. Possible impact from interruptions of some communications and distribution operations. Atsugi: Until it is clear that planned outages are over, semiconductor production lines operation will be suspended. As for other business, hours and activities scheduled to fit planned outages. Possible impact from interruptions of some communications and distribution operations. Yamagata, Akita: Plans to scale back operations due to effects of planned power outages
6762	TDK	3/15	Company announcement	TDK Micro Device (Ibaraki; organic EL): Damage inspections underway; production suspended. TDK-MCC Kitakami plant (Iwate; capacitors): Preparing for production on 3/15, but possible impact from planned power outages. Narita plant (metal magnets), Kofu plant (thin film devices), Media Technology (Yamanashi; data storage tapes), Akita plant (various electronic materials), Chokai plant (ferrite cores), Inakura plant (ferrite cores), Akita plant (capacitors), Honjo plant (capacitors), Ouchi plant (coils, high-frequency components): Preparations being made for production, but possible impact from planned power outages. Technical Center (development of various products), Kisakata plant (development of various products), Hirasawa plant (R&D), Tsuruoka plant (coils, transformers, power supplies, sensors): Operating, but possible impact from planned power outages. Kisakata plant (capacitors); Konoura plant, Yuzawa plant, Iwaki plant (coils, high-frequency components); Honjo plant (power supplies); Yashima plant (sensors); TDK Ujo (capacitors); Sakata plant, Yuza plant (coils, transformers, power supplies, sensors): Production resuming, but possible impact from planned power outages.
6981	Murata Mfg.	3/15 17:00	Company announcement	Tome plant: Damage to building interior and parts of facilities. Electricity, water, gas lifelines cut off. Schedule for resumption of operations TBA. Sendai plant: No major damage to buildings or facilities. Electricity, water, gas lifelines cut off. Schedule for resumption of operations TBA Oyama plant: No major damage to buildings or facilities. Resumption of operations may take time depending on power supplies (planned outages, etc.); schedule TBA.
6723	Renesas	3/15 12:00	Company announcement	Production suspended at 7 of 22 domestic bases. Renesas Northern Japan Semiconductor Tsugaru plant: Some damage to buildings. Production facilities being checked (during power outage). Waiting for power to return, starting equipment inspections. Renesas Yamagata Semiconductor Tsuruoka plant: No damage to buildings. No damage to production facilities. Operations scaled down due to power outages. Planning scaled-back operations to fit power outages. Renesas Electronics Naka plant: Damage to buildings and production facilities. Operations suspended (power out). Plans to check cleanroom conditions after power is restored. Renesas Electronics Takasaki plant: Some damage to buildings; no damage to production facilities. Preparing for resumption of operations (planned power outages). Plans to start operations after planned outages wind down. Renesas Electronics Kofu plant: Some damage to buildings and production facilities. Preparing for resumption of operations (planned power outages). Plans to start operations after planned outages wind down. Renesas High Components (Aomori): No damage to buildings or production facilities. Plans to start operations after planned outages wind down. Renesas Northern Japan Semiconductor Yonezawa plant: Some damage to buildings and production facilities. Preparing for resumption of operations within scale allowed by power supplies.
6753	Sharp	3/15 17:00	Company announcement	No major damage to buildings. Only production base in eastern Japan is Tochigi Plant, but this will be operating on a curtailed schedule from 3/15, depending on power supplies.
6758	Sony	3/14 11:00	Company announcement	Operations at the following sites are suspended: Sony Chemical & Information Devices Tagajo plant (magnetic tape, BD, etc.), Tome office (optical components, IC cards, etc.), Sony Shiraishi Semiconductor (semiconductor lasers), Sony Energy Devices Koriyama office, Motomiya office (lithium-ion batteries, etc.), Sony Manufacturing Systems (Kuki city, Saitama; mounting equipment, etc.), Sony DADC Japan Ibaraki plant (CDs, DVDs, etc.), Sony Sendai Technology Center. The following sites have voluntarily powered down: Sony Chemical & Information Devices Kanuma office, Sony Energy Devices Tochigi office, Sony Atsugi Technology Center. There are no reports of damage to production facilities or buildings. Sites other than those noted above are operating. Conditions at other domestic affiliates are currently being checked.

Source: Company announcements, news media, Citi Investment Research and Analysis.

Appendix A-1

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