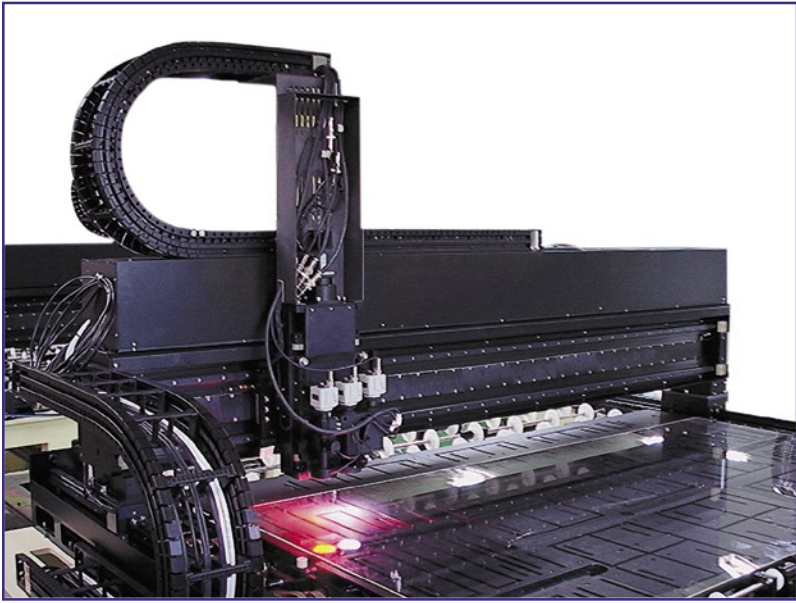




# SynqNet™

Application Note

## Next Generation Flat Panel Display Manufacturer Selects SynqNet™ Motion Network Platform.



**Company:**  
Soonhan Engineering Company, Ltd.

**Industry:**  
Flat Panel Display Manufacturing

**Application Type:**  
Large Area Linear Motor Gantry System for FPD Pattern Inspection

**Source:**  
Soonhan Press Release  
Seongnam, Korea – 25 January, 2004

Precision Large Area Linear Motor Gantry for the FPD Industry.

Soonhan Engineering Company announced that one of its top tier Flat Panel Display (FPD) customers has chosen SynqNet™ as its next generation motion control platform.

The large area gantry was designed by Soonhan to satisfy next generation requirements in the fast moving FPD industry. The linear motor gantry was designed for pattern inspection and provides a very large workspace envelope and a high level of motion accuracy. Because of tight performance specifications and the overall size of the equipment, SynqNet was selected as the best-in-class solution.

As the size of FPD machine increases, so must the length of the cable runs from controls to drives, I/O and other devices. Reducing the amount of wiring is a significant issue to the FPD industry in terms of material cost savings and labor reductions. Wiring and connections create most of the problems with installing motion control systems and those are typically related to electrical noise and physical connections. All-digital SynqNet motion networks address these issues since there is only one CAT5 cable running between motion controller, drive, and I/O modules. And since SynqNet is built on IEEE 802.3, the network has a high degree of electrical isolation properties to ensure dependable operation even in the most electrically noisy environments. In addition, SynqNet offers a high degree of remote diagnostic capabilities, making it easy to locate a faulty cable or connection anywhere in the system. SynqNet's "self-healing" fault tolerant feature in ring topology mode enables

the equipment to operate in the event of a faulty connection, or complete wire break between nodes, anywhere in the system. No other motion network available today offers this level of safety and reliability.

According to Soonhan, linear motor gantry systems designed with SynqNet are easier to build, easier to troubleshoot, and offer numerous areas of cost reductions than gantries designed with other network protocols or conventional motion control systems. SynqNet linear motor gantries are designed to satisfy the next generation (6<sup>th</sup> & 7<sup>th</sup>) FPD machines. Soonhan also remarked that SynqNet is enjoying remarkable adoption in Korea and the Pacific Rim region. Applications for SynqNet machinery include new generation TFT-LCD equipment, PDP manufacturing, and 300mm wafer processing.



**Soonhan Engineering Co. Ltd.**  
208-210 Hyundai 1-Valley, 223-12 Sangdawon-dong,  
Joongwon-Ku Sunghnam-City,  
Kyungki-do Seoul Korea  
Phone: 82-31-737-9188 • Fax: 82-31-737-9196

**For Motion Information:**  
SynqNet Organization: [www.synqnet.org](http://www.synqnet.org)  
Soonhan Engineering Co. Ltd.: [www.soonhan.co.kr](http://www.soonhan.co.kr)

©2004 Motion Engineering, Inc. All rights reserved. Information & specifications subject to change at any time. All trademarks property of their respective owners. sqorg\_soonhan\_jan2004.