



B.B.S. Electronics

*a distributor
facilitator
your partner*



www.bbs.com.sg



.....as a distributor

represents over 20 brands of electronic components, communications and industrial devices, including wireless local loop equipment.

Since 1984, BBSE now operates 11 centres across 8 countries to reach researchers, designers and manufacturers of hi-tech equipment.

.....as a facilitator

streamlines buying processes with kitting services best suited to any business or manufacturing environment. Customer care teams from all 13 centres exercise different strategies suited to different customer portfolio. No material procurement list is too small or too big, too fragmented or too complicated, including one-to-one electronic data interchange (EDI) on stocking programmes such as VMI, JIT, SOI and more.

Experience gained and knowledge exchanged from being a facilitator between suppliers and customers, is channelled back to the manufacturers - components to equipment, as technical support and solutions - acting as their advisor for the maintenance, management, design and operation of the next generation devices.

Field application teams in China, India, the Middle East and Singapore network to keep a continuous exchange of application information from these emerging markets. Manufacturers leveraging on this available intelligence benefit from the tried and tested strategies.

.....as your partner

connects you across diversity and addresses differences across markets and people.

BBSE headquartered in global ready Singapore, is the platform for any supplier or customer looking for greater collaboration beyond short-term goals, but a reliable and trusted partner.

B.B.S. Holdings

is an investment holding company, now owns **BBS Electronics** and **BBS Access**, a wireless local loop systems and solutions developer of *DECLoop* and *DECSim*.

distributor
facilitator
your partner

SINGAPORE

Head Office
BBS Electronics Pte Ltd
10 Tannery Lane, Singapore 347773
Tel (65) 6559 8400 .
Fax (65) 6748 8466 / 6743 4344

AUSTRALIA

BBS Electronics (Australia) Pty Ltd
Melbourne
Tel (61 3) 9542 1900 . Fax 9543 8291

CHINA

Singapore BBS Electronics Pte Ltd
Shanghai
Tel (86 21) 6249 0868 ext120. Fax 6248 7425

INDIA

BBS Electronics International Pvt Ltd
Bangalore
Tel (91 80) 2530 6611/2 . Fax 2530 6610

Mumbai

Tel (91 22) 2824 2374/5/6 . Fax 2825 8746

New Delhi

Tel (9111) 4061 1000/1001. Fax 4061 1099

MIDDLE EAST

BBS Electronics Pte Ltd
Tel (987 11) 235 5501 . Fax 235 9559
Tel (98 21) 8837 4906-10 . Fax 8837 1983

MALAYSIA

BBS Electronics (M) Sdn Bhd
Penang
Tel (60 4) 658 5433 . Fax 658 7433

PHILIPPINES

BBS Electronics Pte Ltd
Manila
Tel (63 2) 494 8657 . Fax 772 3478

THAILAND

BBS Electronics Pte Ltd
Bangkok
Tel (66 2) 693 2896/7/8 . Fax 693 2899



Fact Sheet

10 Tannery Lane, BBS Building, Singapore 347773

Telephone: (65) 6559 8400 Telefax: (65) 6748 8466 / 6743 4344

E-mail: bbselectronics@bbsgroup.com.sg URL: www.bbs.com.sg

Company Registration Number:
198403403M

Year Established:
1984

Company Ownership:
Private Limited

Key Personnels:
Dr Behrouz Gholamrezaey
Chairman

Mr Sunny Arora
Chief Executive Officer

Mr Yee Yen Han
Chief Finance Officer

Core Business Description:
Distribution, JIT material and
assembly kitting, concept-proof pilot
production for R&D or field trial

Products/Services:
Electronic components

Brands:
Electronic Components
*AVX Kyocera, Axsem, Clare, Epson,
Everlight, Fuji Electric, Grayhill,
HongFa, Intersil, Isocom, Legerity,
Littelfuse, NXP, Ocular, Protek
Devices, Sicon, STM, Thomson, TT
BI Technologies, TT IRC, TT Optek,
TT Welwyn, TXC, Yamaichi, Zarlink,
Zettler*

Major Clients:
Original equipment manufacturers,
Original design manufacturers,
contract manufacturers,
design houses, users of electronic
components

Export Markets:
Asia Pacific
Confederation of Independent States
Europe
Middle East
US

Awards & Qualifications Received:

2003 - Enterprise 50, No. 2
2002 - Enterprise 50, No. 6
2001 - Enterprise 50, No. 9
2000 - Enterprise 50, No 44

2008 - ISO 9001:2000

Other Locations:

BBS Electronics (Australia) Pty Ltd
Australia - Melbourne

BBS Electronics Pte Ltd
China - Shanghai

BBS Electronics International Pvt Ltd
India - Bangalore, Mumbai,
New Delhi

BBS Electronics Pte Ltd
Middle East

BBS Electronics (M) Sdn Bhd
Malaysia - Penang

BBS Electronics Pte Ltd
Philippines - Manila

BBS Electronics Pte Ltd
Thailand - Bangkok

B.B.S. Electronics



www.avxcorp.com

- Capacitors
- Circuit Protection
- Connectors
- Couplers
- Filters
- Inductors
- Integrated Passive Components
- Military Products
- Module Devices
- Piezoelectric Acoustic Generators
- Resistive Products
- Timing Devices



www.axsem.com

- RF transceiver IC



www.bitechnologies.com

- Microcircuits and Modules
- Passive Networks & Discrete Components
- Precision Potentiometers
- Screened Substrates
- Sensors
- Switches
- Turns Counting Dials



CLARE

www.clare.com

- Embedded Modem Modules
- Data Access Arrangement Modules
- High-speed Line Interface Products
- Line Cards Access Switch Products
- MOSFETs
- Multifunction Products
- Optically Isolated Solid State Relays
- Optocouplers
- Phone Line Supervision
- Power Products
- Power Solid State Relays
- Silicon DAA, Phone Line Interface
- Solar Cell Products
- Tone Signaling Products



www.everlight.com

- Communication Product Group
- Infrared Product Group
- Intergrate Circuit Application
- Visible Product Group



www.epson.com.sg

- 4/8/32 Bit Microcomputer
- Application Guide
- ARM core 32-bit Microcomputers
- Clock ICs
- Gate/Embedded Arrays
- High Performance 4-bit Microcomputers
- Interface ICs
- LCD Controllers/Drivers
- MCU Tools & Technical Information
- Other Drivers
- Peripherals • Power Supply ICs
- Standard Cells • Static RAMs



www.fujielectric.com

- Bipolar Transistors (discretes and modules)
- Diodes, Fast Recovery, Schottky, and high-voltage diodes
- IGBT (discretes and modules)
- IPM (intelligent power module)
- MOSFET and Smart MOSFET
- Power Management ICs, Sensor ICs and Driver ICs (CMOS)
- Surge Absorbers



www.grayhill.com

- Controls Products
- Front Panels
- Switches
- Wireless Products



www.hongfa.com

- Relays



www.intersil.com

- Amplifier/Buffers
- Communications
- Data Conversion • Digital
- Display Products • Interface ICs
- Military/Space • Optical Storage
- Power Management
- Special Analog
- Switch/MUXes/Crosspoints
- Timing Circuits
- Video
- Voltage Reference



www.irctt.com

- General Purpose • High Voltage
- Networks • Power Wirewound
- Special Purpose Components
- Surface Mount



www.isocom.com

- Optocouplers
- Optoisolators
- Optoswitches
- Optosensors
- Mosfet Relays



www.legerity.com

- Line Drivers
- Voice Interface Products



www.littelfuse.com

- Fuses
- Resettable PTCs
- Overvoltage Products



www.nxp.com

- Analog and mixed-signal device
- Audio/Video
- Bus devices
- Clocks & Watches
- Data Communications
- Discretes
- Display drivers
- Identification & Security
- Logic
- Microcontrollers
- Peripherals
- Power & Power management
- Wired communication
- Wireless communication



www.ocular.com.sg

- LCD Panels/Module
- LED & CCFL Backlight



www.optekinc.com

- Custom Sensing Solutions
- Fiber optics
- Magnetic sensors
- Optoelectronics
- Visible LEDs



www.protekdevices.com

- EMI Filter TVS Arrays
- Flip Chips TVS Arrays
- Low/ Standard Capacitance TVS Arrays
- Modules & Components
- Steering Diode Arrays
- Steering Diode TVS Arrays
- Thyristors



www.siconsemi.com

- High Performance Analog to Digital Converters
- 8 Bits Single Channel
 - 8 Bits Three Channels
 - 10 Bits Single Channel
 - 10 Bits Three Channels



www.st.com

- Discretes
- Linear
- Logic
- Microcontrollers
- Smart Card Products
- Voltage Regulators



www.thomson.net

- Digital STB NIMs for Satellite, Cable and Terrestrial
- Remote controls



www.txccorp.com

- Automotive Crystal
- Crystal Oscillator
- Crystal Resonator
- SAW Device
- Timing Modules



www.welwyn-tt.co.uk

- Microelectronic Solutions
- Resistors



www.yamaichi.com

- Cables and FPC
- Connectors
- Production Sockets
- Test & Burn-in
- Y-Con Industrial Series



www.zarlink.com

- Analog
- Receivers for Digital TV
- Voice and Data
- Wireless



www.zettlerhk.com

- Automotive / Solid state relays
- Electromechanical relays
- Customized display & glass panels
- LCD
- Transformers

B.B.S. Electronics



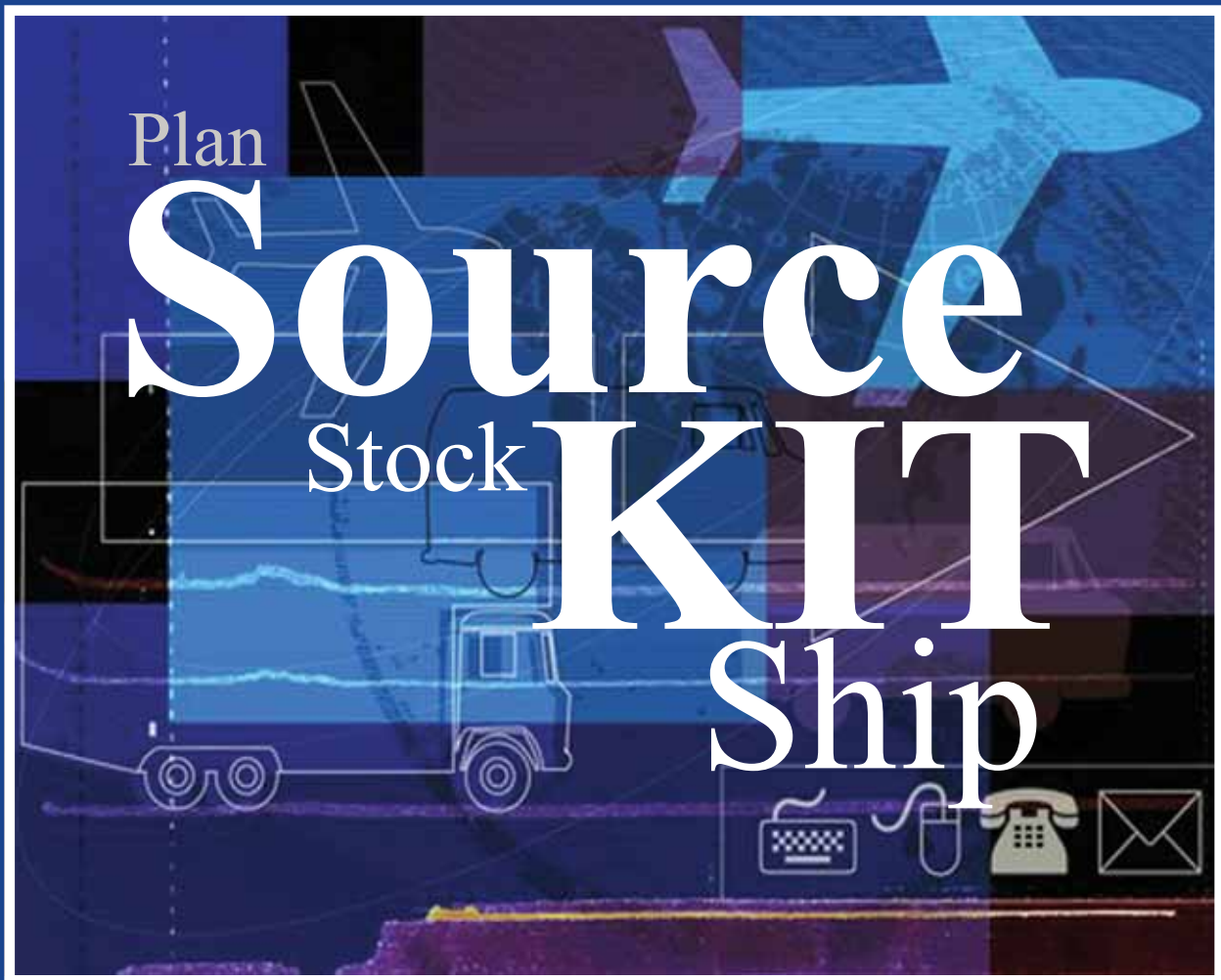
Plan

Source

Stock

KIT

Ship



MATERIAL KITTING

Just-in-time Material Kitting

- (for production)
 - buffer stocking
- full/partial supply of material
 - *electronic components
 - *mechanical parts
 - *PCB
 - *casing
 - *plastic

Assembly Kitting

- supply of fully assembled and test modules as part of total system
 - box build and SKD supply

Turn-key Manufacturing

- concept-proof pilot production for R&D or field trial
- outsource production for customers Finance Director

Who benefit from BBS Electronics' material kitting service?

- Manufacturers with a continuous production run, or with low to medium production needs
- Sub-contractors with a broad spectrum or fragmented material procurement list.
- Manufacturers with other operational focus such as R&D and marketing instead of production, warehousing and logistic.

What are the benefits?

- Cost reduction in your procurement process.
- Timely delivery of stable electronic component supply for production cost reduction in inventories.
- Assist to migrate obsolete, short supply or expensive electronic components to reduce material cost.
- Stable supply to feed production lines.

How reliable is this service?

- BBSE is headquartered in Singapore, a country of sound economic and financial fundamentals, conducive regulatory and business environment, strategic location, skilled and educated workforce, excellent telecommunications and infrastructure.
- BBSE is equipped with ready infrastructure:
 - electronic resource planning system
 - 13,000 square feet warehouse
 - 23,000 types of electronic components
- BBSE is experienced in EDI with customers on stocking programmes such as VMI, JIT, SOI, etc
- BBSE is ready to support your requirements with customer service teams across Australia, China, India, the Middle East, Malaysia, Philippines, Singapore and Thailand
- BBSE is accredited as one of Singapore's top 50 most enterprising companies for 4 consecutive years since 2000.

supplies
**electronic components
for
Industries and Solutions**



Automotive

- Tyre Pressure Monitoring System (TPMS)
- RF Remote Control



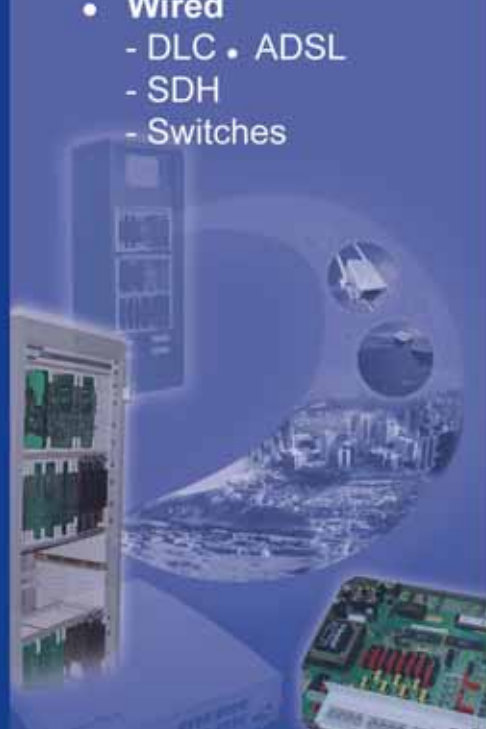
Communications

- **Wireless**
WLL • VSAT • GSM
- **Wired**
- DLC • ADSL
- SDH
- Switches



Power

- Energy Meter





SUPPORT and SOLUTIONS

Automotive

- RF Remote Control Tyre
- Pressure Monitoring System (TPMS)

Telecommunication

- Wireless
 - *WLL
 - *VSAT
 - *GSM

Power

- Energy meter

What kind technical support and solutions does BBS Electronics provide?

- Core application concept demonstrations
- Component level functionality verifications
- Long-term silicon technology roadmap advice
- Construction of reference circuits or software development tools
- Turnkey design (on selective basis)
- General technical assistance and problem-solving in application of component

Who benefit from BBS Electronics' technical support and solutions services?

- OEM customers
- R&D centres
- Design consultants

What are the benefits?

- Shortening of R&D cycle
- Earlier time-to-market for your product
- Astute investment on R&D tools
- Systems against obsolescence of component technologies
- Choosing the right key components with long-term roadmap to avoid costly re-designs
- Repeated learning curves and opportunity costs
- Commercial advantage to your product by deploying the latest, leading edge performance components embedded in our design at a competitive cost level



B.B.S. at a Glance

WHO ARE WE?

B.B.S. Access

incorporated in 1999

Manufacturer

- Telecommunication infrastructure systems based on Wireless Local Loop technology
- PABX
- Energy meter

B.B.S. Electronics

incorporated in 1984

Distributor

Electronic components

B.B.S. Telecommunications

incorporated in 1993

Research and Development

- Communication systems
- Digital Electronic meters

WHOM DO WE SERVE?

Telecommunication companies
Internet service providers
Private operators of voice and data

Original equipment manufacturers
Contract equipment manufacturers
Users of electronic components
Design houses

Homes and SOHOs
Small- and medium-sized offices
Enterprises
Utility companies (private and public)

WHERE ARE WE LOCATED?

Singapore (Head Office)
Middle East

Singapore (Head Office)
Australia | China | India
Middle East | Malaysia
Philippines | Thailand

Singapore (Head Office)

WHAT DO WE PROVIDE?

Wireless telecommunication infrastructure systems and solutions

DECLoop | DECSim

IPMax

PABX

IPS, micro-Plexus, macro-Plexus

AMR Solution and Energy Meter

Metator | Metator Solo / Tango /

Acroasis/ Viewer/ Composer

Electronic Components

AVX Kyocera | Axsem | Clare | Epson

| Everlight | Fuji Electric | Grayhill

HongFa | Intersil | Isocom | Legerity

| Littelfuse | NXP | Ocular | Protek

Devices | Sicon | STM | Thomson | TT

BI Technologies | TT IRC | TT Optek

TT Welwyn | TXC | Yamaichi | Zarlink

Zettler

AMR Solution

Energy Meter

PABX (TDM, IP, Hybrid)

WHAT FACILITATING SERVICES DO WE PROVIDE?

Network planning
for DECT based WLL equipment

Component/Material kitting
Field, project & application
design-in support/consultation

ODM/OEM services on industry
standard and /customised solutions
in small to medium telecom
applications, switches, last-mile
delivery, end-end smart power
metering

WHAT BACKEND INFRASTRUCTURE DO WE HAVE?

Production labs
Warehouse

Online information network system
Warehouse

Research & development labs