



# 通核科技簡介 暨產品項目介紹



# 通核科技簡介

“四通八達,直取**核**心!”這代表著通核科技長久以來扮演著系統整合的角色：我們自歐美等先進國家引進最優質的測試儀器設備，並真正做到顧全測試系統中每一個環節，針對客戶不同的需求，提供低成本且具有競爭力的系統整合解決方案，讓客戶可以安心的把測試系統的建構交付給我們！

通核科技自許能夠成為最優秀的設備儀器代理商與最專業的系統整合商：我們的工作團隊均具有電子電機學經歷的專業背景，部分更曾任科技大廠的研發人員，所以更有能力掌握了解客戶的真正需求，提供最專業技術支援。堅持以人為本的理念與態度，第一時間的專人服務，讓通核科技深深獲得客戶(ex:友達光電,緯創資通...)的信賴與推薦！

通核科技團隊更希望藉由提供完整的數位產品測試解決方案，除了讓研發人員與產線測試能夠快速且穩定研發，生產更具競爭力的優質數位產品外，也因此能為台灣的數位科技產業盡一份心力！

## 量測設備事業部負責

- 測試儀器設備到貨安裝及教育訓練(含測試規範解說)
- 設備維修及校驗檢測
- 客製化測試軟體製作與儀器設備自動測試程式製作
- 依客戶需求製作 DTV Transport Stream

## 生產技術工程部負責

- RD或產線之訊號中心儀器規劃及產線規劃
- 類比/數位訊號中心佈線施工及產線測試站施工
- 客戶產品組裝測試SOP規劃，提供測試設備與代工組裝測試
- 組裝測試治具製作

# DTV System turn-Key Solution

- DTV Test and Measurement System for DVB / ATSC and Open Cable DTV完整測試系統。
- ISDB-S: BS/CS & DVB-S/S2 數位衛星電視完整測試解決方案。(衛星架設與研發及產線設備提供)
- ISDB-T (1 Seg & Full Seg) 日規數位電視/行動電視完整測試解決方案。
- **DMB-T/H (DTMB)** 陸規數位電視 / 手提電視完整測試解決方案。
- HDMI / HDCP / CEC 高畫質多媒體介面測試解決方案。
- DVB-H & DAB/ T-DMB 行動廣播系統數位電視完整測試解決方案。
- Transport Stream Capture/Generation/Analysis Solution 數位碼流擷取/播放/分析解決方案。
- D-book/E-book/NorDig Test Solution 數位電視相關規範測試解決方案。
- Analog TV 類比電視 (NTSC/ PAL / SECAM) 完整測試解決方案。
- RF Test and Measurement Equipment 射頻訊號分析測試設備。
- HDTV Pattern Generator (**Support 1080P , Full HD**) 數位高畫質HD訊號產生器。
- 彩色分析儀 / 影像分析測試設備 / 自動量測調校系統。
- 兩岸三地產線規劃與配線施工 ; **數位 / 類比訊號中心建置**。

## - 產品項目 -

- 數位電視測試儀器設備 (PAGE 1~8) :  
SDG-3600、DTV-550A、TPG-0597USB、CI/CA  
CI PLUS測試套件、AT278USB、AT8-USB、  
CSG-101、LG3802
- 類比電視測試儀器設備 (PAGE 9~10) :  
LT-416、WISI Broadcast System
- GPS/ FM / RDS測試儀器設備 (PAGE 11~13) :  
MP-9100、GPS-550、VP-8194D
- RF量測分析與測試儀器設備 (PAGE 14~20) :  
MP-7200、50BR-008、AT120-50、AT101-50、  
PDA-7、DM14C、U3741、TDS系列
- 視頻、音頻量測分析儀器設備 (PAGE 21~22) :  
VP-7670T、CA-210
- HDMI測試儀器設備及CONNECTOR (PAGE 23~26) :  
HS-280L、HVP-4000、DVI/HDMI CONNECTOR
- 低成本二手儀器設備 (PAGE 27) :  
FLUKE-54200、TG19CC、VG-828/848/859C

# DTV Multi-Standard RF Signal Generator SDG-3600M

## Features

- Low cost and high performance
- Multi-Standard Modulation (User select) in single RF output
- DVB-ASI output for monitoring
- Network Remote control
- Has friendly windows GUI
- **DVB-T2/C2 ; ISDB-S** available



## SDG-3600M

## Specification

DVB-T/H Module Option	AT SC Module Option	DVB-S/S2 Module Option
-Standard : ETSI EN300744 v1-4-1 -RF Output : 55~956 MHz -Bandwidth : 5/6/7/8 MHz mode -Constellation : QPSK, 16-QAM, 64-QAM	-Standard : ATSC A.53, 8VSB mode -RF Output : 55~956 MHz -Modulation : 8VSB	-Standard : ETS 302 307 compatible -RF Output : 956~2150 MHz -Modulation Modes : QPSK, 8PSK, 16APSK, And 32APSK
DVB-C & Open-Cable Module Option	ISDB-T Module Option	DTMB Module Option
-Standard : ITU-T J.83 Annex A/C -RF Output : 55~956 MHz -Modulation Modes : 32, 64, 128 and 256QAM  -Standard : ITU-T J.83 Annex B -RF Output : 55~867 MHz -Modulation Modes : 64 and 256QAM	-Standard : ARB STD-B31 -RF Output : 55~956 MHz -Constellation : DQPSK, QPSK, 16-QAM, 64-QAM -Guard Interval : 1/4, 1/8, 1/16, 1/32 -Coding Rate : 1/2, 2/3, 3/4, 5/6, 7/8 -Mode : Mode1, Mode 2, Mode 3 -Number of Segments : TV 13 Support TMCC Information and Generation	-Standard : GB 20600-2006 -RF Output : 55~956 MHz -Bandwidth : 5/6/7/8 MHz mode -Constellation : 4-QAM, 4-QAM+NR, 16-QAM, 32-QAM, 64-QAM -Mode : C=1 / 3780 -F.E.C : 0.4, 0.6, 0.8

# DTV RF Signal Generator DTV-550A

## Features

**Monitor Option :** Built in LCD Touch Panel

**DSS Option :** DVB-S/S2 Modulation  
( L Band RF Output )

**DVB-T2 available**



## DTV-550A

## Specification

DVB-T/H Module	AT SC Module
<ul style="list-style-type: none"> <li>-Standard : ETSI EN300744 v1-4-1</li> <li>-RF Output : 50~1000 MHz</li> <li>-Bandwidth : 5/6/7/8 MHz mode</li> <li>-Constellation : QPSK, 16-QAM, 64-QAM</li> </ul>	<ul style="list-style-type: none"> <li>-Standard : ATSC A.53, 8VSB</li> <li>-RF Output : 50~1000 MHz</li> <li>-Modulation : 8VSB</li> </ul>
DVB-C & Open-Cable Module	DVB-S/S2 Module Option
<ul style="list-style-type: none"> <li>-Standard : ITU-T J.83 Annex A/C</li> <li>-RF Output : 50~1000 MHz</li> <li>-Modulation Modes : 32, 64, 128 and 256QAM</li> </ul> <ul style="list-style-type: none"> <li>-Standard : ITU-T J.83 Annex B</li> <li>-RF Output : 50~1000 MHz</li> <li>-Modulation Modes : 64 and 256QAM</li> </ul>	<ul style="list-style-type: none"> <li>-Standard : ETS 302 307</li> <li>-RF Output : 950~2150 MHz</li> <li>-Modulation Modes : QPSK, 8PSK, 16APSK, And 32APSK</li> </ul>

# Premium USB DTV Modulator TPG-0597USB



## TPG-0597USB

### Features

- Transport stream from hard drive thru USB interface and DVB-ASI/SMPTE-310M input  
DVB-ASI, SMPTE-310M output for monitoring
- On board VHF/UHF/L-BAND RF output up-converter
- Programmable RF output level (0.1dB step)
- Superposition white noise over modulated signal and control the output C/N ratio
- SDK for Windows 2000/XP/7 and Linux
- CMMB/DVB-T/DVB-H, ATSC 8VSB, QAM, DVB-S/DVB-S2, T-DMB, ISDB-T, DTMB, ATSC-MH modulation option available
- Free 0dBm amplifier option
- **DVB-T2/C2 ; ISDB-S** available

# Premium USB DTV Modulator

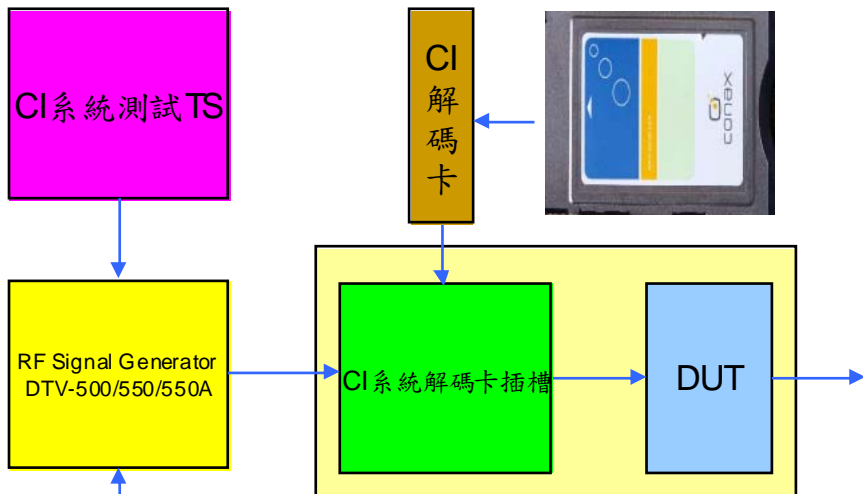
## TPG-0597USB

### Specification

DVB-T/H Module Option	DVB-S/S2 Module Option	AT SC Module Option
<ul style="list-style-type: none"> <li>-Standard : ETSI EN300744 v1-4-1</li> <li>-RF Output : 55~956 MHz</li> <li>-Bandwidth : 5/6/7/8 MHz mode</li> <li>-Constellation : QPSK, 16-QAM, 64-QAM</li> </ul>	<ul style="list-style-type: none"> <li>-Standard : ETS 302 307 compatible</li> <li>-RF Output : 956~2150 MHz</li> <li>-Modulation Modes : QPSK, 8PSK, 16APSK, And 32APSK</li> </ul>	<ul style="list-style-type: none"> <li>-Standard : ATSC A.53, 8VSB mode</li> <li>-Modulation : 8VSB</li> </ul>
CMMB Module Option	T-DMB Module Option	DTMB Module Option
<ul style="list-style-type: none"> <li>-Standard : GY/T220.1-2006</li> <li>-Constellation : BPSK ,QPSK, 16-QAM</li> </ul>	<ul style="list-style-type: none"> <li>-Standard : ETS300401,ETS300799</li> <li>-T ransmission Mode : Mode1 , Mode 2 , Mode 3</li> <li>-T ransmission mode automatically selected from the ETI stream</li> <li>-Supports ETI(NI) and ETI(NA) file format</li> </ul>	<ul style="list-style-type: none"> <li>-Standard : 20600-2006</li> <li>-Bandwidth : 8 MHz</li> <li>-Constellation : 4-QAM , 4-QAM+NR, 16-QA M, 32-QAM, 64-QAM</li> </ul>
ISDB-T Module Option	DVB-C & Open-Cable Module Option	AT SC-M/H Module Option
<ul style="list-style-type: none"> <li>-Standard : ARIB STD-B31 v1.6</li> <li>-RF Output : 55~956 MHz</li> <li>-Constellation : DQPSK, QPSK ,16-QAM, 64-QAM</li> <li>-Guard Interval : 1/4, 1/8, 1/16, 1/32</li> <li>-Coding Rate : 1/2, 2/3, 3/4, 5/6, 7/8</li> <li>-Mode : Mode1 , Mode 2 , Mode 3</li> </ul> <p style="color: red;">-Support TMCC</p> <p style="color: red;">-Support 1 Segment &amp; 13 Segment</p>	<ul style="list-style-type: none"> <li>-Standard : ITU-T J.83 Annex A/C</li> <li>-RF Output : 55~956 MHz</li> <li>-Modulation Modes : 32, 64, 128,and 256QAM</li> </ul> <ul style="list-style-type: none"> <li>-Standard : ITU-T J.83 Annex B</li> <li>-RF Output : 55~867 MHz</li> <li>-Modulation Modes : 64 and 256QAM</li> </ul>	<ul style="list-style-type: none"> <li>-Standard : ATSC A/153 Part2</li> <li>-RF Output : 55~956 MHz</li> <li>Supports captured file play, live from external ATSC-MH MUX through ASISMPTE- 310M input</li> </ul>



## CI/CA Test

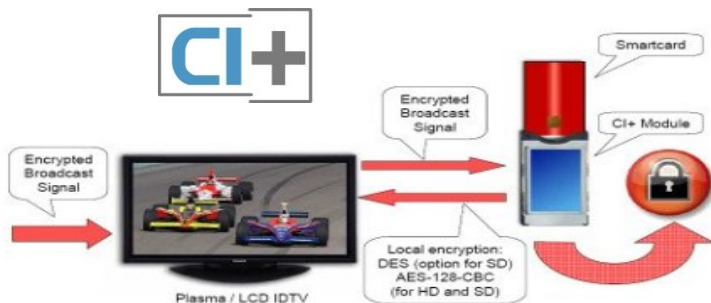


## 測試步驟

1. 將CI系統測試TS放入DTV-500/550A之中
2. 將CI系統解碼卡插入DUT
3. 由DTV-500/550A輸出加密之RF訊號至DUT
4. 由人眼判別DUT是否可正常解出畫面

DTV RF Signal  
Generator  
DTV-500/550A  
(Modulator Built in)

# CI [PLUS] 系統測試套件



應用範圍：

- 1.DVB數位電視/機上盒產品CI+介面軟、硬體開發與測試
- 2.生產線上產品CI+介面測試
- 3.送認證前的自我檢測

- 測試項目：
- 1.Authentication
  - 2.[CI PLUS] Browser
  - 3.CAPMT
  - 4.Date & Time // Host & Language
  - 5.Host control
  - 6.Reset
  - 7.CAM software upgrade
  - 8.Content Control

# USB DTV RF Generator AT278USB



## Features

- Alitronika DVS RF Generator (USB Type)
- High Speed USB 2.0
- Windows 2000 and XP Drivers.
- DVB-T/H/C ( QAM-A/B/C ) & ATSC 8-VSB Modulator
- VHF & UHF Up-converter .
- IF & RF outputs
- DVB-ASI input
- RF Output Frequency Range: 50MHz to 1000MHz .
- RF Output Power over bandwidth:
  - 15dBm to -50dBm, adjustable in 0.5dB steps.

# USB TS CAPTURE AT8USB/AT72USB



AT8USB

## Features

- **Alitronika DVS RF Capture (USB Type)**
- High Speed USB 2.0
- Windows 2000 and XP Drivers.
- DVB-T Input Device. (Support 6,7 & 8 MHz Bandwidths)
- Input : DVB-T Compliant COFDM Reception.
- Modulation Modes: QPSK, 16QAM, 64QAM.
- COFDM Spectrum: DVB-T and DTG compliant.
- Supports 188, 204 Transport Packet Sizes.
- **AT72 For 8VSB / QAM System**

# CMMB Signal Generator CSG-101

## CMMB Modulation Features

- Standard: GY/T 220. 1-2006
- Byte Interleave mode : mode1 , mode2 , mode3
- RS coding : (240,240) , (240,224) , (240,192) , (240,176)
- LDPC Bit rate : 1/2, 3/4
- Constellation : BPSK, QPSK, 16QAM
- Signal bandwidth : 8MHz
- IFFT :4096 points
- GI and TXID support
- Transmitter ID: Configurable



CSG-101

## RF SPECIFICATION

- RF Output Connector : BNC Type
- RF Output Frequency : 50MHz ~ 1GHz(VHF/UHF)
- RF Frequency Resolution : 1Hz
- RF Power Level : +10 ~ -110dBm
- Frequency Accuracy:  $1 \times 10^{-7}/25$  °C (intra-REF)
- RF Level Accuracy:  $\pm 0.5$ dB relative to the level 18-33°C
- RF Impedance : 50  $\Omega$
- IF Output Interface : 70MHz , 75  $\Omega$  , BNC,-20dBm

# ISDB-T Signal Generator LG-3802



LG-3802

## ISDB-T Modulation Features

### ■ Broadcasting system

Digital Terrestrial TV : ARIB STD-B31

Digital Terrestrial Audio : ARIB STD-B29

### ■ Transmission Parameter

Hierarchical layer : TV : 3 layers max.

Audio 3 segment : 2 layers max.

Audio 1 segment : 1 layer only

Mode : MODE 1, MODE 2, MODE 3

Guard Interval: 1/4, 1/8, 1/16, 1/32

Carrier Modulation: DQPSK, QPSK, 16QAM, 64QAM

Convolution Coding Rate: 1/2, 2/3, 3/4, 5/6, 7/8

Time Interleave Length: 0 to 32

Number of Segments : TV : 13, each layer can arbitrary be set.

Audio 3 segment : 3, each layer can arbitrary be set.

Audio 1 segment : 1

## RF SPECIFICATION

■ Frequency Range : 50 to 860 MHz

■ Output Range : -100 to +13 dBm (into 50Ω)

Resolution : 0.1 dB

Impedance : 50 Ω

■ C/N Variable Range: 0 to 30 dB

Setting Resolution: 0.1 dB

# LEADER Pattern Generator LT-416



## LT- 416

### Features

- **Conforms to four standards (i.e., NTSC, PAL, SECAM, NTSC-4.43)**
- **Component video signal output**
- **S connector**
- **Analog TV RF Output**
- **Various test patterns**

## ATV RF Modulator WISI Broadcast System

### Features

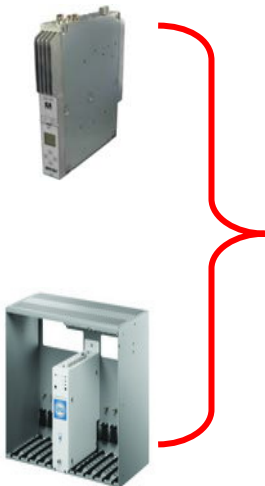
- Low cost and high performance
- Multi-Standard Modulation

NTSC M

PAL B/G, D/K, I

SECAM D/K, L

- High expansibility and reliability
- Has friendly UI



WISI Broadcast System



# GPS Satellite Simulator (Multi Channel 6/8) MP-9100

## Features

### ■ Frequency Characteristics

Frequency Range : 1575.42MHz

Warm-up time (typical) : 30 minutes

Frequency Accuracy : +/-100ppb maximum

Temperature stability : +/-100ppb maximum

Aging (Per year) : +/-100ppb maximum

(Per day) : +/-1 ppb maximum

### ■ Channels

Number : 1~8

Navigation data : GPS C/A @1.023MHz with 50bps

Modulation : BPSK

### ■ Spectral purity

Phase Noise @1KHz offset : <-80dBc/Hz

Harmonic : <-70dBc

### ■ RF Output Characteristics

High power normal output level : -90dBm ~ -55dBm

Low power normal output level : -145dBm ~ -90dBm

Channel Attenuation range (refer normal output level : -31.5dB ~ 0dB)

Amplitude Resolution : 1dB step

Amplitude Accuracy : <+/-1dB

Output Impedance : 50 ohms



[MP-9100](#)

# GPS Signal Generator GPS-550



## GPS-550

### Features

- Verify operational integrity of GPS receivers
- Production test sensitivity tests of GPS satellite
- Adjustable RF levels from -60 dBm to -160 dBm in 1 dB steps
- Doppler control allows the operator to select a positive or negative carrier frequency shift of approximately 3 kHz
- Low cost and high performs
- Small size and easy to operation
- GPS navigation function tests
- GPS R&D optimizing tracking tests

# LEVEAR AM/FM/RDS Signal Generator VP-8194D



## VP-8194D

### Features

- 具備高性能輸出，並搭載長效型電子衰減器—20 dB  $\mu$ V $\sim$ 126 dB  $\mu$ V，0.1dB/step
- 頻率範圍自100KHz $\sim$ 140MHz
- 具AM/FM 同時調變機能
- FM 立體聲調變功能
- 內建RDS+ARI 信號產生(VP-8194D)
- 可選配20Hz $\sim$ 20kHz DDS 音頻信號源
- 具備GP-IB. RS-232-C.EXT/IO 介面傳輸標準

### Specification

- FM 調變：0.0kHz $\sim$ 100kHz
- AM 調變：0% $\sim$ 80%
- 失真率：FM 0.05%以下、AM 0.5%以下
- 高輸出level(-20dB  $\mu$ V $\sim$ 126dB  $\mu$ V[emf])。
- 微處理器補償了每一step 0.1dB 之高精度度。
- 量測頻帶：100kHz $\sim$ 140MHz。
- 同步系統可達100Hz之解析度及 $5*10^{-6}$ 之精確度
- 支援GP-IB 和RS-232 介面標準/自動序列及外部I/O 簡易系統

# RF Recorder/Player MP-7200



MP-7200

## Features

- FREQUENCY COVERAGE: 25MHz to 2.7GHz
- ADJUSTABLE BANDWIDTH FROM 1MHz TO 20MHz
- SAMPLE RATE: 100MS/s
- RESOLUTION: 14 BIT
- NOISE FLOOR: < -155dBm/Hz
- SUPPORTS MINIMUM RECORDING UP TO 100 MINS
- CONVENIENT MOBILE FIELD TESTING SOLUTION FOR DTV AND GPS
- SPECTRUM ANALYZER
- SUPPORTS GPS NEMA DATA LOGGING RECORDING
- RF FILE FORMAT SUPPORT MATLAB SOFTWARE ANALYZER
- FILE SEGMENT PLAY FUNCTION

## Specification

- TV Broadcasting Standard : DVB-T/H , DVB-T2 , DVB-SH , CMMB , ISDB-T , ISDB-TSB , Media FLO , ATSC-M/H , T-DMB , DVB-C , DVB-C2 , OPEN Cable , ATSC , DTMB , NTSC , PAL , SECAM
- Radio Broadcasting Standard : FM/RDS/TMC , IBOC - HD Radio , XM Satellite Radio , Sirius Radio , DAB
- Navigation Standard : GPS , CNSS , CLONASS , GALILEO

# Attenuator (Made in U.S.A) 50BR-008



## 50BR-008

### Features

- 頻率範圍：DC~2200MHz
- 輸入介面：50ohm，BNC/SMA
- 衰減範圍：0-80 dB，可逐次1dB 微調
- 精準度：DC-500MHz,+/- 1% 以內  
DC500-1000MHz,+/-2%以內  
DC1000-2200MHz,+/-3%以內

# Programmable Attenuator AT120-50



## AT120-50

### Features

- Frequency range : 1MHz~12000MHz
- Attenuator range : 0~101dB (1dB Step)
- Easy Manual Operator and Remote Control
- Can Upgrade 0.5dB and 4 port 24V output
- Can Chose Multi channel for 802.11N , two CH , three CH
- Can select 1U type case or A4 size case
- Can select +23dBm , +30dBm , +33dBm Max input power
- Build in 0dB power table in inside ROM (future option)
- One GPIB Port four Address (can select)

# USB Programmable Attenuator AT101-50



## AT101-50

### Features

- Application for subsystem
- Frequency range : 1MHz~6000MHz
- Attenuator range : 0~101dB (0.5dB Step)
- Easy Remote Control
- Can Chose Multi channel
- 可根據客戶需求做搭配不同衰減模組

# PROFESSIONAL DIGITAL & ANALOG ANALYZER / RF METER DM-14C/ PDA-7

## Features

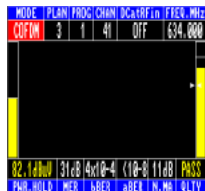
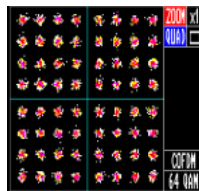
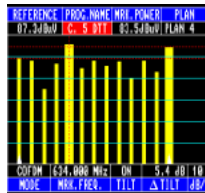
- 頻率範圍(Frequency Range ): 4-878 MHz (TV) , 930-2250 MHz (SAT For DM-14C only)
- 類比電視解調 : NTSC/PAL
- FM RADIO 解調
- 訊號強度 (Power Level )測量 : Digital & Analog
- 數位訊號解調(Demodulated) : QPSK / COFDM /8VSB / QAM (PDA-7 only support DVB-T )
- C/N ratio測量
- BER訊號品質測量
- Modulation & Parameter 參數解調
- 信號品質自動判斷 : FAIL-MARGINAL-PASS
- 頻譜分析(Spectrum)模式
- BAR SCAN 模式
- Teletext 顯示(DM-14C Only)
- 透過RS232介面可與PC連接
- 解調接收畫面 MPEG decoder (DM-14C Only)



DM-14C



PDA-7





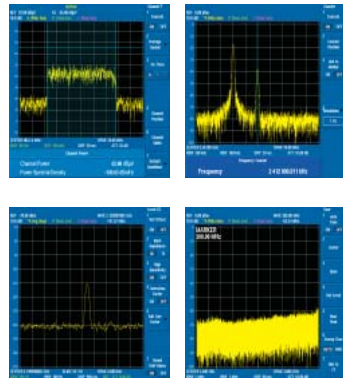
# Spectrum Analyzer U3741(3G)

## Features

- 頻率範圍 : 9kHz to 3GHz
- 頻率全幅 : 10 kHz to 3 GHz ,Zero
- 視訊頻寬 VBW : 300 Hz to 3 MHz  
1-3 Steps
- 解析頻寬 RBW : 10 Hz to 3 MHz  
1-3 Steps
- 振幅量測範圍 : +30dBm to Average  
displayed noise level
- 最大輸入位準 : +30dBm , ±50VDC
- 輸入最大衰減範圍 : 0 to 50dB 10dB step
- 掃瞄時間 : 20ms to 1000 s
- 掃瞄時間準確度 :  $\leq \pm 2\%$
- 觸發信號 : FREE RUN , VIDEO , EXT ,  
IF
- 掃瞄模式 : REPEAT , SINGEL
- 平均雜訊位準 : -134dBm+1.3f(GHz)dB
- 校正信號 : 20MHz, -20dBm $\pm$ 0.3dB
- 內建計頻器 : 1Hz,10Hz,100Hz,1KHz
- 內建 Pre-amplifier : 10MHz to 3GHz
- 接頭/阻抗 : N type/50ohm



U3741



# 數位儲存示波器 Scope TDS系列

## Features

- 40 MHz、60 MHz、100 MHz 和 200 MHz 頻寬
- 高達2 GS/s 的即時取樣率
- 2 或4 個通道
- 彩色或單色LCD顯示
- 透過面板USB埠移除資料儲存
- 利用Open Choice® 和 NI Signal Express® PC 軟體
- 透過USB裝置連接埠進行無縫PC連線
- 進階觸發包括脈衝寬度觸發和可選擇掃描線的視訊觸發
- 所有機型的FFT標準
- 11種自動量測
- 多語言使用者介面和智慧型輔助說明
- 透過USB裝置連接埠直接列印



## TDS系列

## Levear AV Tester VP-7670T



### VP-7670T

## Features

- Combined measuring system suitable for Car AV equipment.
- Compact tester combining Audio analyzer, Video analyzer, and AM/FM Signal generator.
- Possible selection of built in functional module.
- Manual operation for various measurements by Direct mode.
- Easy setting of automatic measuring system by Active mode.
- Remote control with LAN connection by Passive mode.
- Realize total cost reduction by compact size / economical price / all in one.

# Display Color Analyzer CA-210



## CA-210

### Features

- At a maximum speed of 20 cycles per second, the CA-210 measures the brightness and color of LCD and a wide range of other display devices.
- Two different types of probes, each with models having different measurement diameters and cord lengths, are available: Select either a Universal Measuring Probe or an LCD Flicker Measuring Probe based on the display to be measured.
- Capable of measuring luminance as low as 0.1 cd/m<sup>2</sup>, the CA-210 can be used for gamma correction and measurement.
- Color measurements can be obtained with an accuracy of  $\pm 0.002$  for white and  $\pm 0.004$  for primary colors.
- With measurement distances as short as  $30 \pm 10$ mm, the CA-210 is perfectly suited to compact system designs.
- Four-digit color display provides higher levels of color precision.
- The CA-210 supports connection of up to 5 sensors.

# HDTV Patten Generator HVP-4000



HVP-4000



## Features

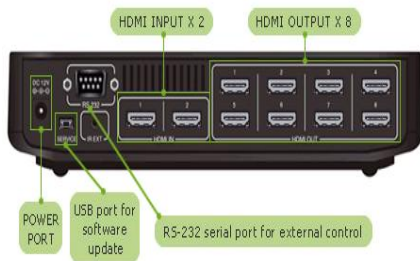
- Low cost and high performance
- Support all the different type of video & audio signals Output
- Easy Maintenance and Management
- IR Remote control
- Has friendly software GUI
- Play with transporting stream files through various outputs on the maximum level of **45Mbps** without reducing the resolution
- Support maximum **1080P/24/60 ; Full HD** resolution (NTSC/PAL/720P/1080i/1080P)

# HDMI Splitter

## HS-280L

### Features

- 2 Input and 8 Output.
- HDMI 1.3 & HDCP Compliant
- CEC (Consumer Electronics Control) compatible, Auto Input Signal Selection
- RS-232 External Control
- Firmware up gradable
- Applications: FPD Shop display / FPD Road show / FPD Exhibition/ Information Display / Advertisement Display / ETC

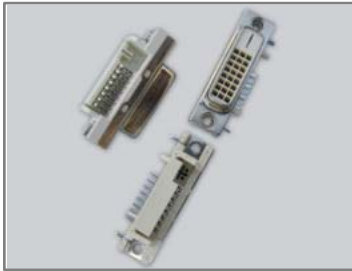


## HS-280L

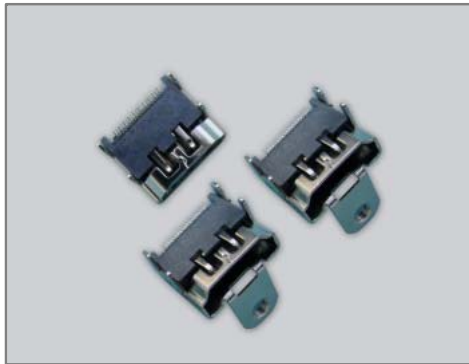
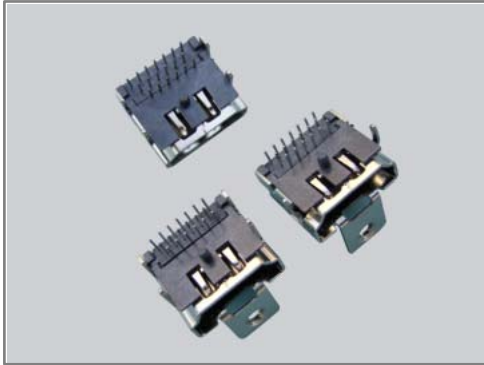
### Specification

Input	HDMI	2CH
Output	HDMI	8CH
Resolution	~1920x1080p60(Full HD)	
HDMI	Compliant HDMI 1.3	
HDCP	Compliant	
Power	AC Inlet	100~240V/AC
Dimensions	W220 x D195 x H 75.95	
Certification	FCC (Acquired) , CE, U.L, MIC (In progress)	

# DVI CONNECTOR



# HDMI CONNECTOR





# 低成本展示機



FLUKE-54200



Astro VG-828/848  
/859C



SHIBASOKU TG19CC

# 通核科技提供給您 ~

## ■ Test Pattern

- 多種靜態 Pattern ,如 color bars ,multi-burst ,256 Gray.....
- HD/SD等動態Test Pattern (480i/480P/720P/1080i/1080P)
- 設備原廠提供之行動電視測試Test Pattern (ISDB-T 1 Segment , DVB-H , T-DMB)
- 產線訊號中心生產測試之標準測試檔案
- 各國節目(從原始國家抓取之TS, 如BBC,CNN...),不斷更新
- Tele-text ,Sub ,多語,CA ,EPG,CC,V-chip.....Pattern
- 我們具有自製Pattern能力及服務,可依客戶需求製作專屬之測試Pattern

## ■ 擁有優秀工程師

- 提供您測試架構及項目建議
- 教育訓練不只是儀器操作更提供您測試架構解說
- 專業訊號中心及產線線路規劃施工,提供您最好的訊號品質及後續維護
- 設備升級諮詢與建議
- 測試應用問題及技術諮詢,如未能於電話中解決客戶問題,專人立即前往
- 類比/數位系統整合架設經驗
- 產品組裝測試規劃代工

## ■ 備用機服務

擁有多台展示設備,可在客戶有需求時提供免費借用

## ■ 硬體皆提供一年保固,軟體一年免費升級

## ■ 完整測試方案,滿足您目前所有 DTV測試需求

# 服務客戶

## ■ AUO友達光電

廈門廠生產線數位電視訊號中心規劃架設

## ■ 緯創資通

菲律賓廠生產線測試設備規劃架設

中山廠生產線測試設備規劃架設

台北汐止總公司研發及品管測試設備

## ■ 宇晨光電

越南廠生產線數位電視訊號中心規劃架設

越南廠生產線測試設備規劃

## ■ 東元電機

觀音廠研發及品管測試設備

## ■ 永碩聯合

新竹台元園區研發測試設備

## ■ 技嘉科技

新店總公司研發測試設備規劃

中壢廠生產線數位電視訊號中心規劃架設

## ■ 台灣卓然

台北公司研發測試設備規劃

## ■ 宏碁集團

台北研發測試設備規劃、治具制作

## 服務客戶

### ■ 兆赫電子

嘉義廠品管測試設備

中和公司RD研發測試設備

### ■ 快特電波認證實驗室

林口公司DTV驗證數位訊號中心規劃架設

大陸昆山工廠產線規劃與施工

### ■ A-Max 中字集團

大陸深圳訊號中心設備與產線規劃架設

### ■ 耕興認證實驗室

台北內湖公司DTV驗證設備

### ■ 矽統科技

新竹公司研發測試設備

### ■ 程智認證實驗室

林口與新店公司DTV驗證設備

### ■ 宣昶

台北內湖公司研發測試設備

...客戶繁多,不勝列舉



通核科技有限公司  
Broadcasting System turn-Key solution



# Thank you

通核科技有限公司

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FAX: 886-2-82582018

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