



PMT用
HV電源作成

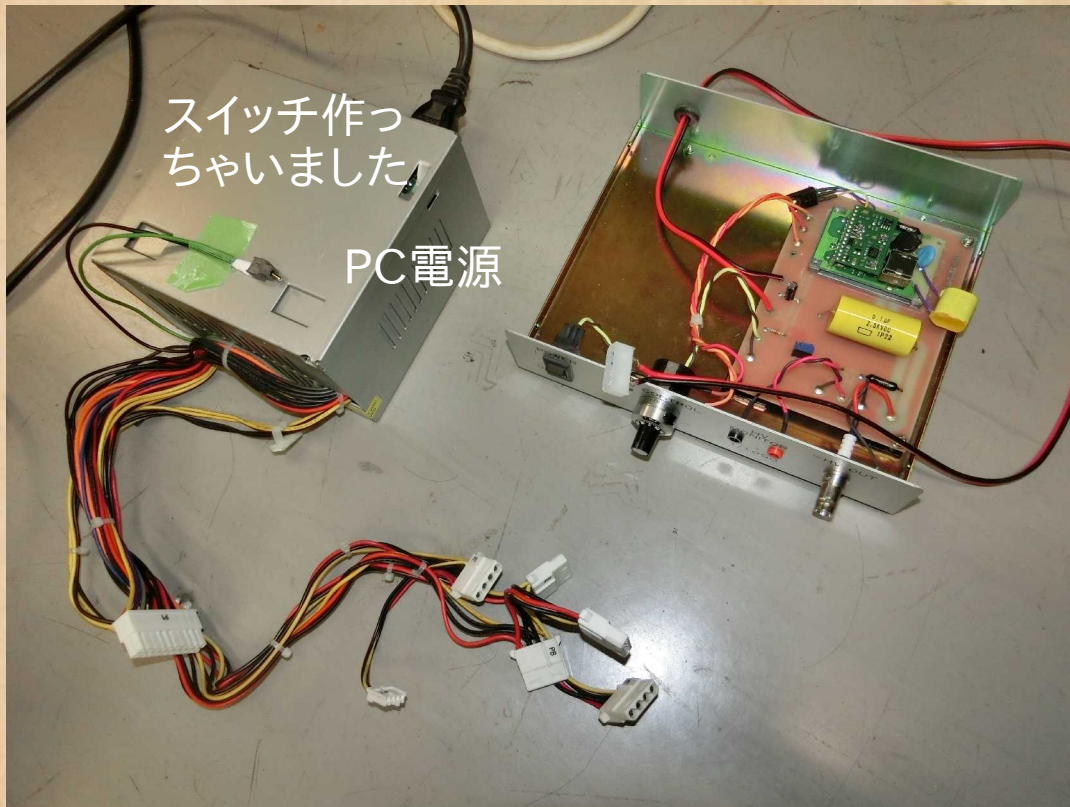
浜松ホトニクスHV Supply

HAMAMATSU K.K.のHV電源を発見

2015/03/07発見



PC電源と浜松ホトニクスHV Supply



浜ホトHV電源を4個発見
電源供給部が接着されていない
このままではPMTは使えない

戦略

1. PC電源を安定電源として使用
2. +15 V安定電源がないので、+12 Vで我慢しよう。
3. PC電源1個で4個のHV電源を動かす
4. 動作確認

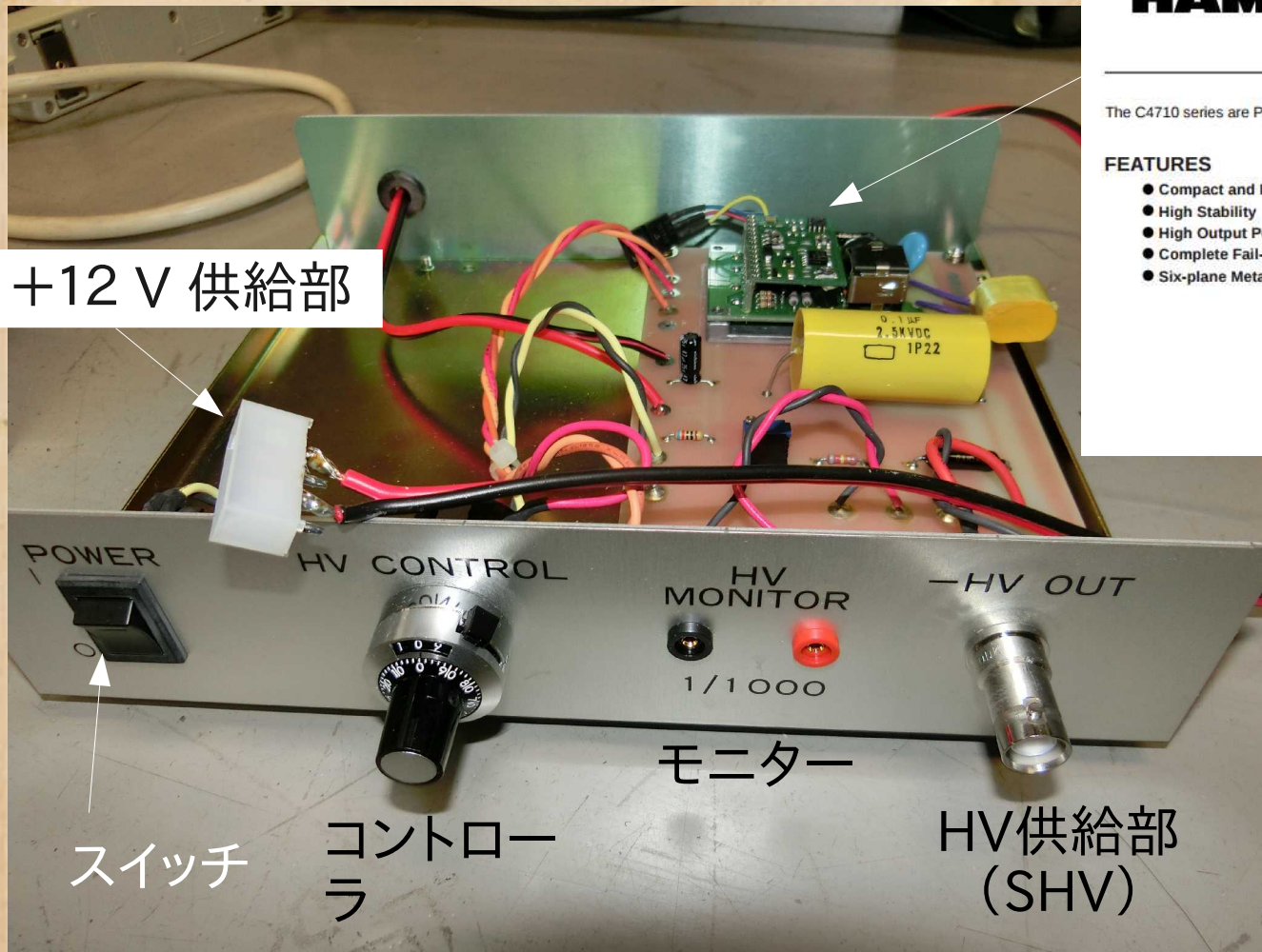
浜松ホトニクスHV Supply

HAMAMATSU HIGH VOLTAGE POWER SUPPLY UNIT C4710 SERIES

The C4710 series are PC-board mountable high voltage supplies for photomultiplier tubes. The series has six standard versions

FEATURES

- Compact and Lightweight
- High Stability
- High Output Power
- Complete Fail-safe Functions
- Six-plane Metal Shielded



+12 V 供給部

スイッチ

コントローラ

モニター

HV供給部
(SHV)

浜松ホトニクスHV Supply

SPEC

Figure 2: Output Voltage Controlling Characteristics

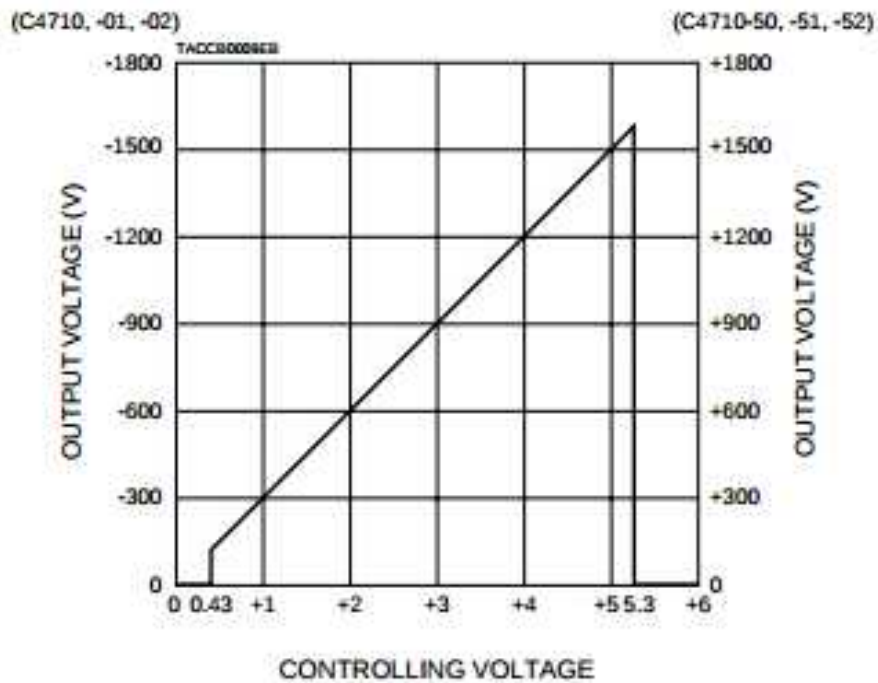
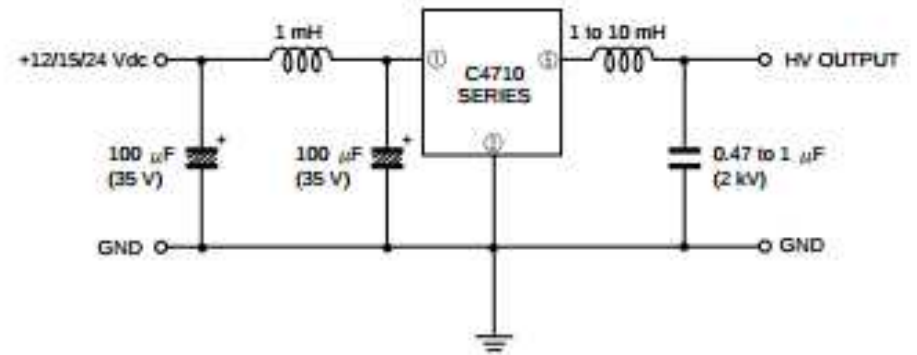


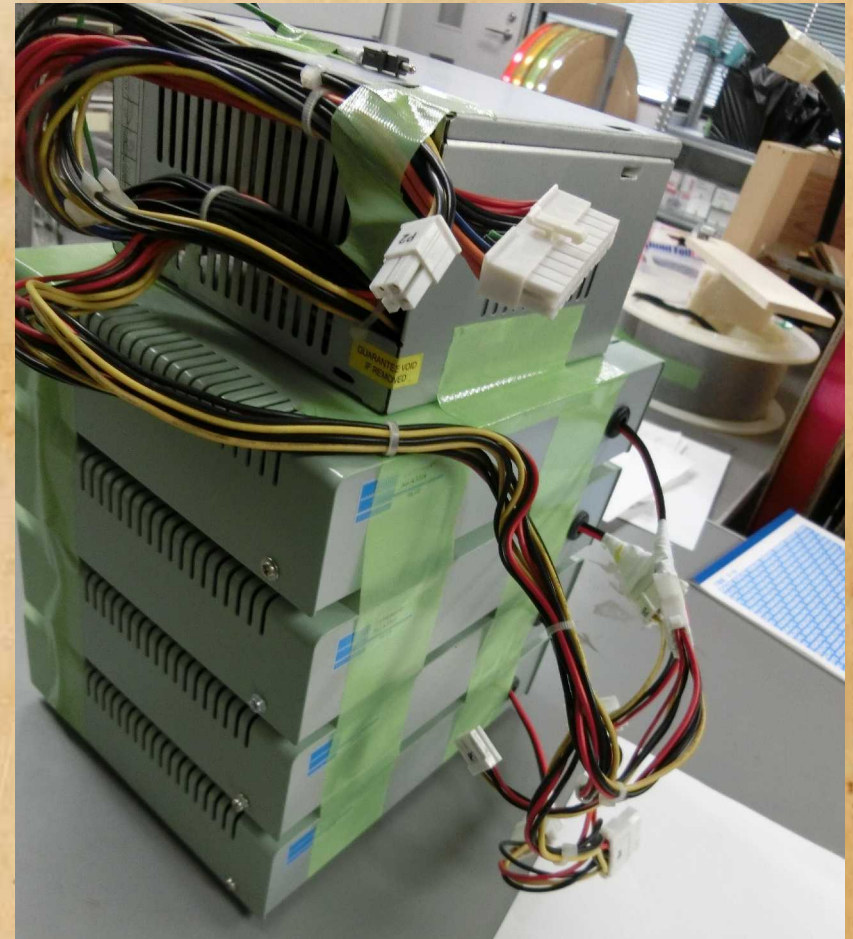
Figure 3: Example of Ripple / Noise Reduction Circuit



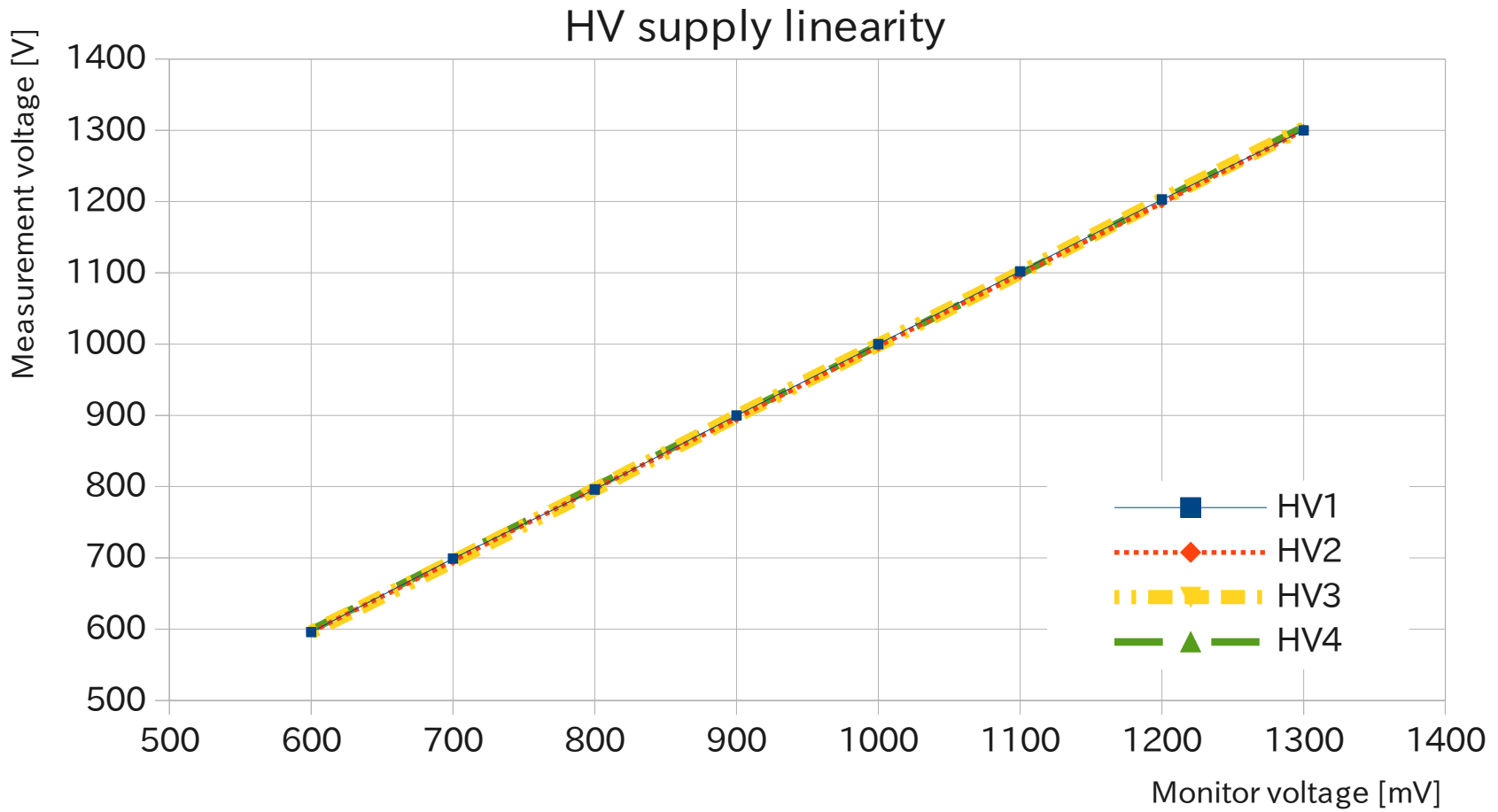
*The ripple/noise can be reduced to approx. 1/10 by adding a choke coil and capacitor as illustrated above.

TACCC0003EB

4ch接続HV電源作成



動作確認



まとめ

- HV電源の復旧に成功
- 動作確認で良い直線性を持つ
(600 ~ 1300 V)
- 4個のチャンネルを実装完了
- 拡張性:最大6chまで可能
他、+5V,+12Vが数ch