



Agilent Technologies

Minimize the Risk
of Buying Used
Test and Measurement Equipment

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Agenda

- **Used Equipment Market and Risks**
- **Minimize the risks:**
 - Evaluate **your needs**
 - Evaluate **“as is” vs. “refurbished”** alternatives
 - Evaluate the **total costs**, both direct and indirect
 - Evaluate the **vendors**, from auction houses to OEMs



Used Equipment Market

- **Buyers have more choices**
- **Classic supply and demand market**
- **Wide range of quality:**

“As is”

LOW QUALITY

“Refurbished”

HIGH QUALITY

- **Used equipment makes sense when:**
 - **You need to stretch your budget**
 - **You need quick delivery**
 - **You need equipment that is obsolete**



But What are the Risks?

Price is low, but risks can be high:

- Wrong product for your application.
- Wrong version of firmware, software, or hardware.
- Repair, calibration, upgrade costs. may exceed cost of a new product.
- Missing accessories and manuals.
- Product may be obsolete.



Minimize your Risk

Steps you can take to minimize your risk:

- **Step 1**
Evaluate your needs
- **Step 2**
Evaluate the alternatives
- **Step 3**
Evaluate total cost of ownership
- **Step 4**
Evaluate the vendors



Step 1: Evaluate Your Needs

- Do you need **leading-edge performance**?
- Does your application require **specific features and performance**?
- **How many years** will you use it?
- Do you need to duplicate an **existing test set-up or system**?
- Will your technical staff require extra **training**?
- **What would be the impact of a delay** on your business?



Step 2: Evaluate the Alternatives

What to look for in “As is” equipment:

- Does it **work**?
- Does it need **upgrades**?
- How **old** is it? Could mechanical parts be **worn out**?
- If discontinued, how many years does the **OEM guarantee support**?
- **What revision** of firmware/software? **Version** of hardware?
- Is there a **return policy**?



Products that have been obsolete for five years or more may not be repairable or very costly to repair.



Step 2: Evaluate the Alternatives

What to look for in Refurbished equipment?

- Refurbished **by the OEM?**
- What is included?
 - Necessary safety upgrades?
 - Firmware upgrades?
 - Testing to original specifications?
 - Current calibration?
 - Required accessories and manuals?
 - Cosmetic restoration?
- How long is the **warranty?**
- Extended warranty available?



If you can't get 100% assurance that the equipment has the performance you need, be sure you have a return policy.



Step 3: Evaluate Cost of Ownership

What are the minimum costs to ensure the equipment performs?

- Purchase price, **PLUS** cost for
 - Upgrades
 - Repairs and service contract
 - Calibration
 - License fees
 - Missing accessories
 - Missing manuals
 - Auction fees
 - Warranty and extended warranty



Step 3: Evaluate Cost of Ownership

What are the additional costs?

- Cost of **downtime** due to:
 - Repair, calibration, upgrades
 - Hardware, software or firmware compatibility
 - Integration into your test processes
 - Staff training
 - Delays in delivery
- Cost of **support** – is the product active or obsolete?



Step 3: Evaluate Cost of Ownership

Comparison of Auction House vs. OEM

	Auction House	OEM
Instrument	Agilent 8753ES Network Analyzer with 6 GHz operation	
List price	8753ES: \$37,368, plus 6 GHZ: \$5,434 = \$42,802	
Discount	50%	35%
Purchase price	\$18,684 + \$2,717 = \$21,401	\$24,289 + \$3,532 = \$27,821
Other fees	15% buyer's premium (auction fee) = \$3,210	None ---
Calibration	Cost to re-calibrate: \$1,157	Calibration is current ---
Performance	Cost to repair to operating condition: \$4,200	Guaranteed to perform ---
Failure	Cost to repair: \$2,100	In warranty ---
TOTAL cost over 3 years	\$32,068	\$27,821



Step 3: Evaluate Cost of Ownership

Other Possible Costs

	Auction House	OEM
Extended warranty		
Service contract		
Support package		
Cosmetic upgrades		
Accessories		
Manuals		
Cost of downtime		
Other		
TOTAL cost over 3 years		



Step 4: Evaluate the Vendor

Can the vendor help you achieve success?

- Work for you on **future requirements**?
- Provide **upgrades**?
- Consult regarding **compatibility issues**?
- Provide consistent **support**?
- Understand your **application and measurement needs**?



Conclusions

- Used equipment can be an excellent way to lower costs.
- By exercising careful due diligence, you can **minimize your risk**.



“As is”

LOW QUALITY
HIGH RISK

“Refurbished”

HIGH QUALITY
LOW RISK



Next Steps

- **Get literature:**
 - “Minimize your risk of buying used T&M equipment” – a brochure containing the content of this seminar, including worksheets.
 - “Eliminate your risk. Purchase Agilent refurbished T&M equipment” – our refurbished equipment data sheet.
- **Find Agilent’s refurbished equipment offering:**
www.agilent.com/find/refurbished
- **Call your local Agilent representative**

